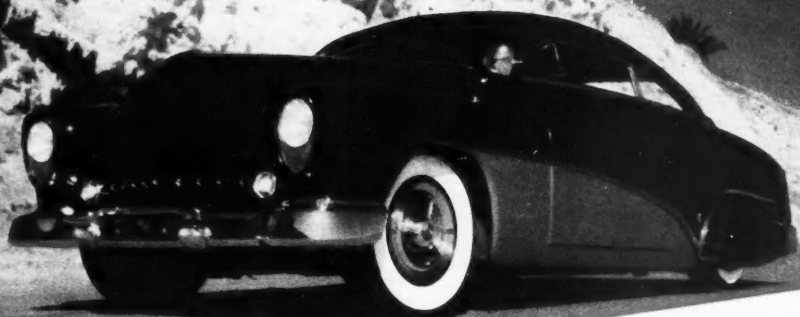


CAR CRAFT

JULY 1955 25c

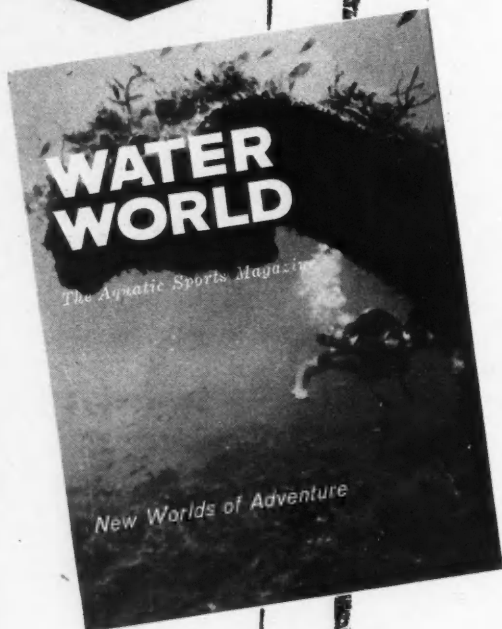


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CAR CRAFT

Vol. 3

Published Monthly
The Show-How Magazine

No. 3

Publisher.....	R. E. Petersen		
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cover

Young Dave Burgarin, a baker by trade, and an avid custom car enthusiast in his off hours, is the proud handler of the '51 Merc that graces this month's cover. How he became a custom car fan and what inspired him to build the immaculate Merc makes good reading. Story begins on page 34.

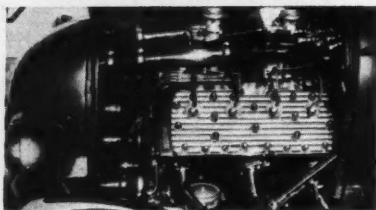
Ektachrome by Eric Rickman

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BENCH RACIN'

with Racer Brown

HOW DO I squeeze this monstrous new engine into this little chassis? If we ponder this awhile, we could easily talk ourselves out of a good thing. On the other hand, if we attack the problem with the hot rodders' credo, "Anything will fit in anything," the end result is almost bound to be more than gratifying.

We've heard of and have seen 300 cubic inch Merc flatheads in M.G.'s, 400 cubic inch Cads in Henry J's and Willys Jeeps, and so on, but, to the interested party, the original question still remains unanswered. Unfortunately, a detailed description of each such installation would take more paper than we have in a whole year of CC's. But to those who are interested in slipping an Olds, Cad, Buick, Chrysler, DeSoto or similar large displacement engine into a Ford, Chevy, Pontiac, Plymouth or some such chassis, there is more to the task than merely selecting the engine. Engine weight is quite important and this one point alone could easily upset a car's balance, resulting in bad handling, hard steering, rapid front brake wear and so on. Few people realize that a Chrysler V8 engine weighs slightly over 800 pounds. This should be carefully considered against a 660 pound Cad, a 625 pound Buick, a 640 pound Olds or 730 pound Lincoln. Compactness of the engine should also be considered.

Then, at some point, we run into the problem of necessary chassis alterations. Any engine that is under consideration should be carefully measured up and compared to the chassis measurements, with an eye toward keeping the engine in the same relative position; that is, without changing the location of the transmission and, a very important point usually overlooked, without changing the angular relationship of the crankshaft-driveshaft axes. In nearly all cases, new front engine mounts must be fabricated and welded to the frame in such a way as to accurately and positively locate the engine in both horizontal and vertical planes. Necessary radiator changes can be made at reasonable cost by a good radiator repair shop.

Sometimes, the steering gear and/or steering linkage must be relocated for exhaust

(Continued on page 63)

Words From The Editor

WE'VE HAD a certain amount of mail go by our desk this last month concerning the value of CAR CRAFT's how-to-do-it articles. It seems that the general contention is that readers without the necessary tools are just out of luck as far as utilizing these particular features. This is understandable at first glance, but let's take a look at the true theory behind these stories. Suppose you live in a locale where body shops are not experienced in custom and restyling work. The magazine would, in this case, serve as an informative instruction sheet as to the procedure of any innovations featured therein. We know this happens frequently because of correspondence received telling us of body shops that have benefitted from certain stories and of enthusiasts having work done on their cars with the shop following directions from the magazine.

We realize also that, from the standpoint of performing jobs in the backyard, everybody isn't fortunate enough to have a complete home welding outfit, electric grinder, drill and the essential hand tools at his immediate disposal. But let's not fail to consider, *every problem has many solutions*. For instance, there are many fireball car clubs that have come up with the idea of purchasing the necessary tools from the club treasury. They

then place a fellow member in charge of same for a specific term of office. The tools usually are maintained at the member's home garage, or at a place where work can be done without creating a disturbance. Another idea is to make use of high school auto shops for working on your car. Many school faculties will support this type of education to the hilt if they are confronted in a sincere manner. Still another thought is one we received the other day in the mail telling us of a small group of fellows that were interested in doing their own work on their cars, but lacked funds to buy the tools to do so. Their decision was that all would chip in an equal amount of money to purchase what was needed. This community project arrangement worked out so well that it prompted them to write us a letter to the effect. Work on one of the cars was so great that we sent for pictures and information on it in the hopes of doing a future feature.

As you can see, these are just a few methods that can be employed to gain access to the needed tools—there are many ways to skin a cat! We think you will find a proud feeling behind doing your own work and creating for yourself—and what the heck, *that's the way it ought to be!*

CAR CRAFT magazine

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LETTERS

CHEVY TROUBLES

Dear Sirs:

I'm a new reader of your magazine, and already I have "customs" in my blood. Your feature "Torch Tips" is very much enjoyed.

I've decided to give my '47 Fleetline Aero Chevy a little change. Here are a couple of problems that confront me which I hope you can help me solve.

1) I've removed all chrome and trim on the trunk and wish to install an electric trunk kit, but a '47 Chevy kit is not available. Could I install a different trunk kit without replacing hinges and trunk brace on mine? If so, which would be best.

Buy yourself a Ford '41-'48 pull-type trunk latch and install it. Make sure the latch aligns with striker plate. In the August '55 issue you will find the correct way to install an electrical system for operating (Part V of "Building a Custom").

2) I must have a license plate light installed. Can I install one on a '49 Chevy front license plate frame, and how could this best be done?

Look for a small oblong-type license plate light. They can usually be found at your leading automotive accessory store. A small light of this type can be tacked brazed under the top rail of the frame guard and is very neatly concealed.

3) I've removed the fender chrome strips and would like to install plain teardrop skirts. Can these be purchased instead of those for a '47 Chevy Fleetline Aero sedan with the chrome strips on? If not, could different make skirts be installed?

You have two choices for the fender skirts: one, the teardrop accessory type can be purchased at leading automotive accessory outlets, such as Barris', Eastern Auto, etc.; they cost approximately \$15.00; if lowered, \$20.00. You can also utilize the '41 long box-type skirts from a '41 Buick. These can also be purchased at the same outlets mentioned above; they cost approximately \$17.00 a pair.

4) Last question. I would also like to know: on a six-cylinder engine, is a split manifold better than headers when installing dual exhausts?

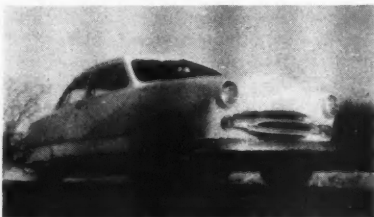
Chevy headers are more efficient, but normally much noisier inside the car.—Ed.

Sincerely,
Richard Macke
Chicago 21, Illinois

MASSACHUSETTS THE HARD WAY

Dear Sirs:

Enclosed is a picture of my '50 Ford which I am sending to show your readers that even



up in Massachusetts we have a few custom fans.

CAR CRAFT

The front speaks for itself, all seams being filled and grille being made up of parts from a '49 Merc, '54 Pontiac and '54 Ford. The trunk is decked with a solenoid to open it. A very small (3 inch) aerial is installed on the rear fender. Headlights have been frenched and rear end lowered 3 inches. Entire car is painted '54 Cad "Alpine White."

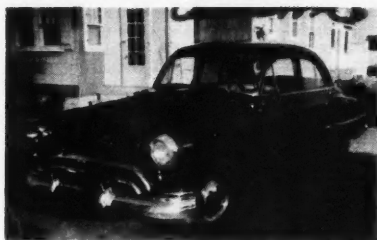
This coming spring I plan to include a '54 Olds Rocket engine and a black and white rolled and pleated interior—Keep the good work coming.

Sincerely,
Bill Speidel
Concord, Mass.

"PONTIAC GRILLE?" . . . YOU BET!

Dear Sirs:

Just a few words to tell you that I, and many of my friends, think that CAR CRAFT is the best reading and most helpful magazine on the market, I have a favorite part of your book, too, which is the "Torch Tips" article.



The picture enclosed is of my Olds, which I purchased about two months ago. So far, I've had the hood and deck filled in, put on skirts and also put Caddy headlight rims on. In the future I plan on installing a '54 Pontiac grille. I would like to know if there will be any difficulty in doing so? Could you fill me in?

Thank you,
Herb Killian
Lavallette, N.J.

There is no problem in installing the '54 Pontiac center grille bar on your Olds, Herb, it fits like a glove. Remove your center bar and cut the Pontiac bar's ends to fit into the opening. Simply bolt it to the inner sides of body panels; on page 35 of the January '55 CCM, you will find a similar installation. Hope we've been of some help.—Ed.

JULY 1955

ADAPTER HOUSINGS

for conversion of O.H.V.
V/8 engines to Ford transmissions

O.H.V. Cad. & Olds. to 32-48 Ford & 32-50 Merc.
O.H.V. Cad. & Olds. to 49-51 Ford
O.H.V. Cad. & Olds. to 52-55 Ford & Merc.
O.H.V. Ford & Merc. to 32-48 Ford
Studebaker V/8 to 32-48 Ford
Chevrolet to 32-48 Ford
G.M.C. to 32-48 Ford
Chrysler V/8 thru 1953 to 32-48 Ford
Dodge & DeSoto V/8 thru 1953 to 32-48 Ford
1954-55 Chrysler V/8 to 32-48 Ford
1954-55 Dodge & DeSoto V/8 to 32-48 Ford
1954-55 Dodge, DeSoto & Chrysler V/8 to 49-55 Ford
Lincoln "L" Head to 32-48 Ford
Lincoln O.H.V. to 32-48 Ford
Lincoln O.H.V. to 49-55 Ford
Buick V/8 to 32-48 Ford
Buick V/8 to 49-55 Ford

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NEXT MONTH

FORD'S

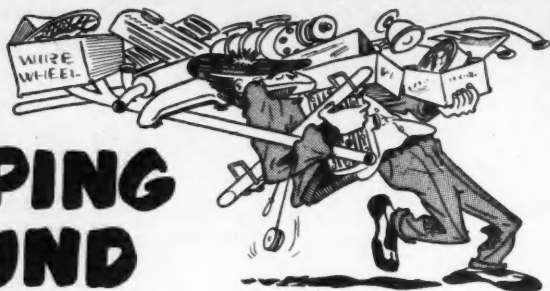
CUSTOM CAR SHOW

HOW TO "C" LATE
MODEL FRAMES

BUILDING A CUSTOM—
PT. V

AUGUST CAR CRAFT

SHOPPING AROUND



PROTO GRAB-ALL TOOL

A retrieving and holding tool, known as the Proto Grab-All, has been announced by the Plomb Tool Company, Los Angeles, Calif. The tool is made in four lengths: 12", 15", 18" and 24". Grab-All tools are useful for retrieving all types of small non-metallic and metallic items that may have fallen into hard-to-reach places. They are also handy for radio, TV and appliance repair work, for instrument board assembly, for grinding and precision work on objects too small to hold in the hand.

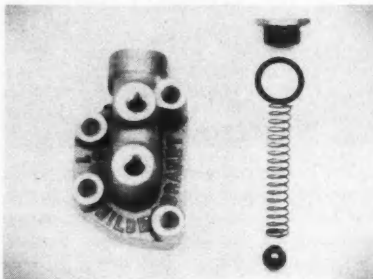
BY-PASS PLATE

When installing the Olds OHV V8 engine in various chassis, you sometimes have to remove the oil filter for more clearance.

By using the new Hildebrandt By-Pass plate, the filter may be removed altogether or another Ful-Flow type filter may be used elsewhere in the engine compartment.

Parts from the stock Olds oil filter are placed into the Hildebrandt By-Pass plate as shown. Price is \$9.50.

Write: Moon Automotive, Box 432, Santa Fe Springs, Calif.



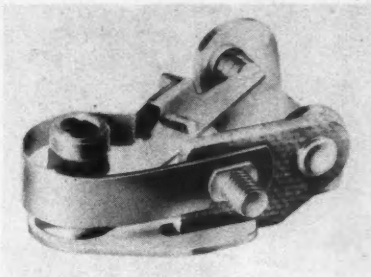
INVISIBLE SEAT COVER

The Sterlite auto seat cover is a new, completely transparent cover custom-made to fit all makes and models of cars.

It is designed to appeal to car owners who desire to enjoy the beauty of new car upholstery yet wish to protect it from wear and stain. Write: Sterling Products Co., 236 E. 9th St., St. Paul, Minn. Sterlite is tough as leather and will resist abrasions.

KEM 1-PIECE POINT SET

The new Kem 1-Piece Point Set is being enthusiastically received by mechanics everywhere. The contact arm and tungsten surfaces are better protected from mishandling and distortion because the components are factory pre-assembled into a 1-piece set and drop easily into place in the distributor. Because the spring tension is factory controlled there is no need for bending or stretching the spring after installation. Write: Kem Mfg. Co., Fairlawn, N.J.

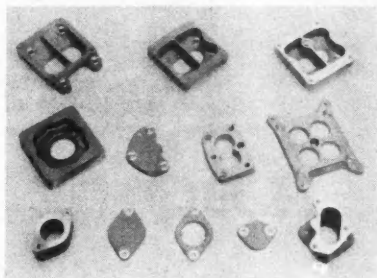
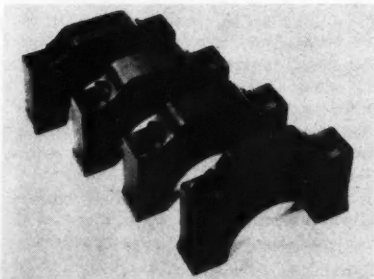


POWER EQUIPMENT FOLDER

This new folder points out benefits to be gained from use of bolt-on power products. Curves shown are plotted from actual tests conducted on a Clayton chassis dynamometer with stock cars equipped with power products. Also in the folder are illustrations of equipment available for '55 and earlier model automobiles. To obtain free copy of "Power," write: Offenhauser Equipment Corp., 5156 Alhambra Ave., Los Angeles 32, Calif.

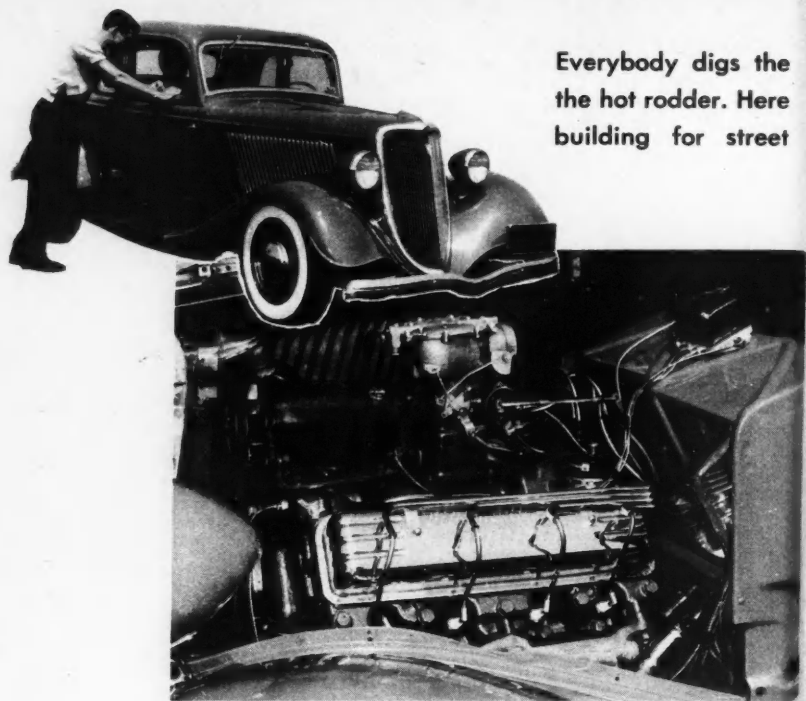
CARBURETOR ADAPTORS

Due to the many new theories and designs in Detroit's latest carburetors, adaption to earlier engines is becoming an ever more popular source of quick and easy increased engine performance. Shown are a few of the various types of adaptors and cover plates which allow this type of installation. Complete coverage of this subject is in the 1955 Catalog on Fuel Systems and Accessories, by Moon Automotive of 10935 So. Bloomfield Ave., Norwalk, Calif. Price of Catalog is 50c.



OHV LINCOLN MAIN CAPS

These new heavy duty main caps are now available for overhead valve Lincoln and truck engines. They are manufactured from the finest material available. A set of 4 in black oxidized finish cost, \$64.80, tax inc. Write: Wilcap Co., 10215 S. San Pedro, Los Angeles, Calif.



Everybody digs the
the hot rodder. Here
building for street

When Dave Evans and Dick Owston replaced stock powerplant with '31 Olds the only real hassle they encountered was the distributor's position; here they had to cut away a section of the firewall to make it fit.

ABOVE N' BELOW

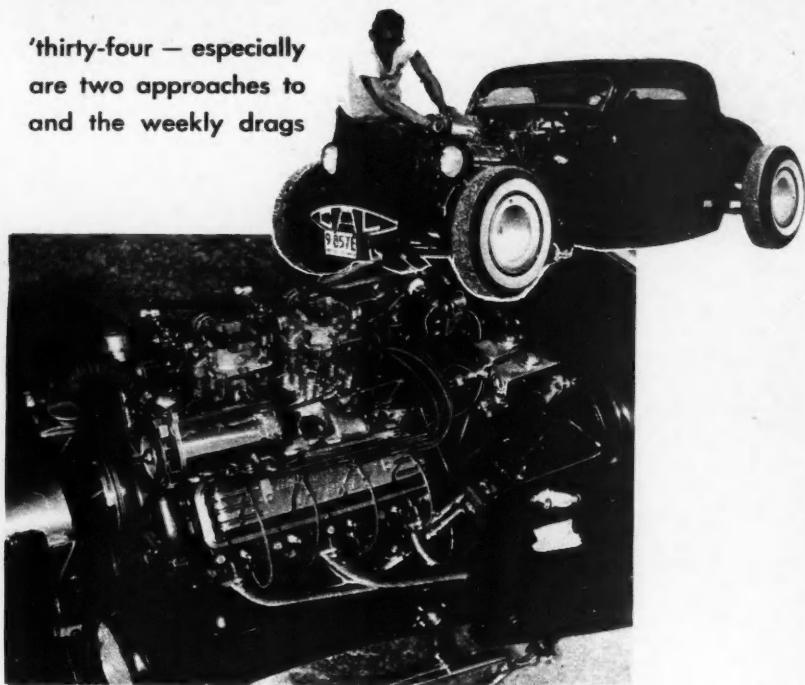
DESPITE their youth, Dave Evans and Dick Owston, co-owners in this Bittersweet coupe, have crowded a lot of competition into their 22 years. On a partnership basis for the past 7 years, they cut quite a swath in the "B" Sedan and "B" Modified Roadster classes with speeds of 123.87 mph and 126.93 mph, respectively, in both the Southern California and San Diego Timing Associations.

Now that the boys were getting "along in years," they decided it was about time they

built up a fine little street job. Settling on the 'thirty-four, they fell to "cherrying out" the coupe from bow to stern. In fact, this was their biggest reconstruction problem; the stock Olds engine transplant being a minor operation by comparison. Nearly all moving parts of any consequence have now been replaced with new or nearly new components.

Peering through the tinted glass windows, curbside spectators spot the highlight of the
(Continued on page 12)

'thirty-four — especially
are two approaches to
and the weekly drags



Cal Morrow's engine consists of a '50 Olds that has been given practically the full treatment. Heads are milled for 8½ compression ratio, Iskenderian cam, Weiand manifold with Carter carbs, Mallory ignition.

THE BORDER

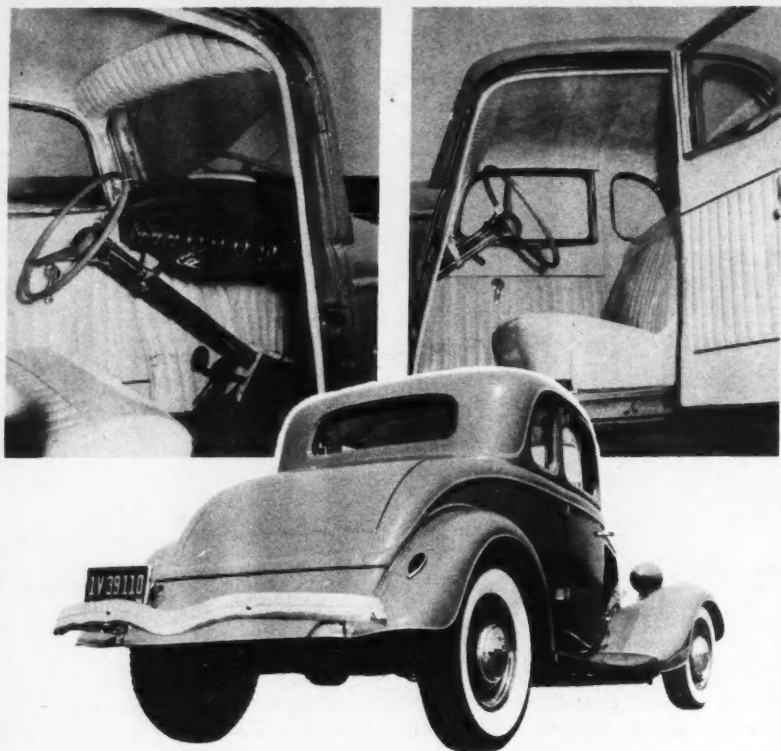
IT'S HARD for an American hot rodder to imagine the obstacles confronting his counterpart in Canada: the high duty on imports and the scarcity of specialized equipment. Just ask Cal Morrow, North Vancouver NHRA member, who tools one of the sharpest looking '34 Ford three-window coupes ever to cross the border.

In possession of an acetylene torch and an average assortment of tools, Cal minimized the impact of the 40 percent duty on imported speed parts by doing such things as in-

stalling his own '50 Olds V8 engine, Merc transmission with Zephyr gears, driveshaft and 3.78 rear end. The driveshaft had to be sectioned 9½ inches and the end resplined. Since a ready-made engine adaptor for the Olds mill checked out at over \$100 in British Columbia, Cal had one turned out in a machine shop for \$40.

Boosting the late powerplant are an Iskenderian Track Grind cam and a Weiand manifold mounting two four-throat Carter carburetors.

(Continued on page 13)



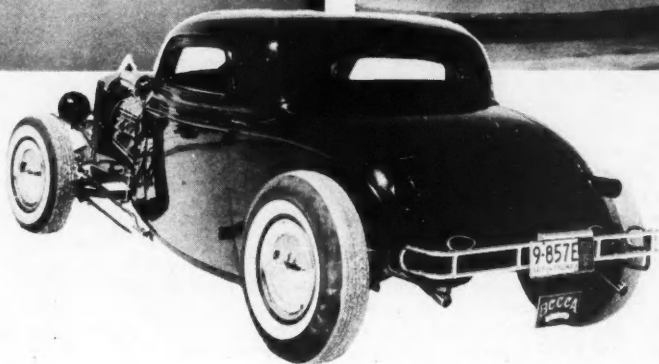
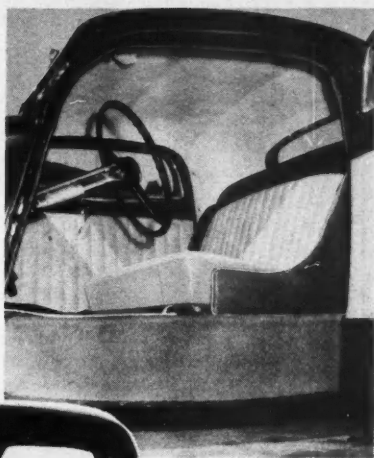
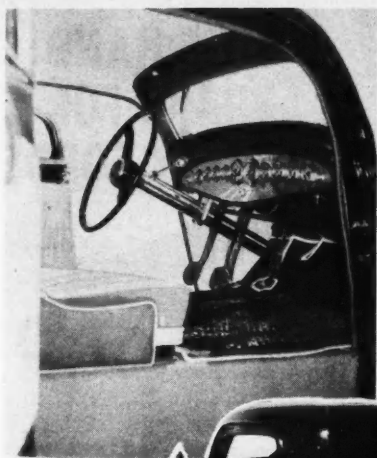
Scotty's Top Shop in San Diego, California is responsible for the immaculate upholstery job in Dick and Dave's little bomb. Color combo of car is egg white Naugahyde for interior and bittersweet enamel for the exterior. Dash is very neat and uncluttered. All window frames and steering column have been chrome plated. The only non-stock components on the car are the '39 Ford teardrop taillights, seal beam headlights, and the deck lid handle has been removed. All in all, it's one of the sweetest '34s this side of heaven.

BELOW THE BORDER continued

car, the white Fabrilite interior fashioned by Scott's Top Shop of San Diego, California. Note that the pleats continue forward from the doors, around the kickpanels and firewall with great effect. The dash retains the stock panel except that all of the original instrument holes have been filled in and a full new set of Stewart Warner dials positioned at evenly spaced intervals across the breadth of the dash.

With the exception of a 3½-inch dropped axle on the front, late hydraulic brakes and a '40 gearbox, the chassis is as stock as the day Henry punched it out. Adding to the rake are 5.90 x 15-inch tires on the front and 8.20 x 16-inch on the rear.

By now you may have noticed that the column gearshift has cunningly been placed on the left side of the steering wheel rather than on the right. Now don't go asking any foolish questions . . . these kids don't spend all their time racin'!



Cal Morrow, on the other hand, went the full route in chopping and channeling. The body was channeled over the frame a full seven inches, which is very obvious when looking at upper right hand picture. The top was chopped four inches, making the car a total of eleven to twelve inches lower than stock. Cal runs no fenders and has removed the running boards. '39 Ford taillights have also been utilized, only installed horizontally. Cal plans on routing exhaust system through protruding tips emerging from rear body panels.

ABOVE THE BORDER continued

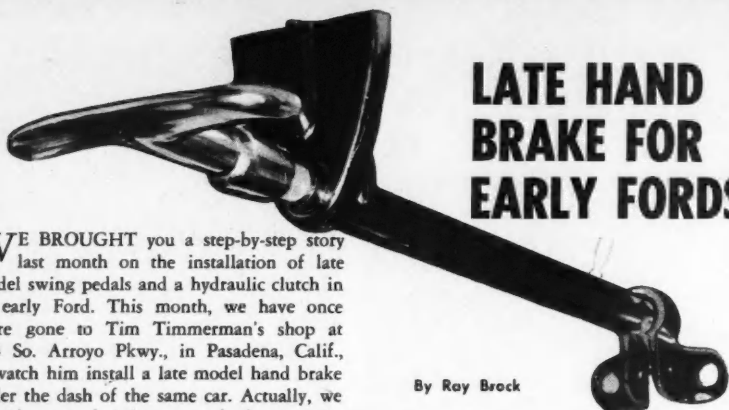
retors. Speed-O-Motive pistons (.060 over) and a .060 milling job on the heads bring the compression up to about $8\frac{1}{2}$ to 1. Cal has shaved the flywheel 20 pounds and advises that others follow suit, only if they do a minimum of city driving.

A real ground-hugger, the black coupe sports a $2\frac{1}{2}$ -inch dropped axle at the front and a 6-inch frame step at the rear. The body has been channeled 7 inches and the top cut 4

inches. Strangely enough, seating position inside isn't half bad once you've ducked in.

An old acquaintance of the CAR CRAFT crew, Cal first met our gang at the '54 Bonneville Trials. Next thing we knew, he and some of his hot roddin' B.C.C.A. (British Columbia Custom Car Association) buddies were "reined up" in front of our Hollywood office, making the rounds of the Southland speed shops. You see, once these Canadian lads learn *what makes* the wheels go 'round, they attempt to see *how far* they'll go 'round!

LATE HAND BRAKE FOR EARLY FORDS



By Roy Brock

WE BROUGHT you a step-by-step story last month on the installation of late model swing pedals and a hydraulic clutch in an early Ford. This month, we have once more gone to Tim Timmerman's shop at 733 So. Arroyo Pkwy., in Pasadena, Calif., to watch him install a late model hand brake under the dash of the same car. Actually, we should say under the gas tank, because the cowl type gas tank is still being used on this car. Some small difficulty was encountered because of the tank, but we figure that if Tim could do the job under these conditions, anybody with a dash panel to anchor the hand brake to is home free.

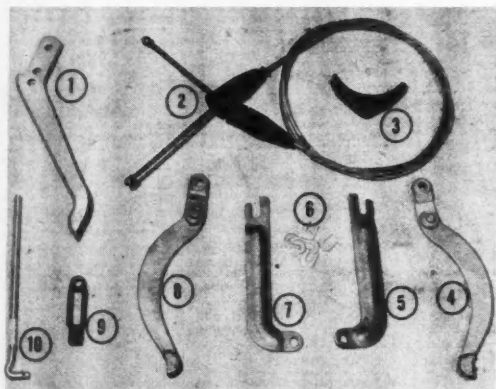
Just like last month, we have used all late Ford pieces to keep the cost down. Believe it or not, the newer the parts used, the cheaper the cost. Also, there is no reason why hand brakes from other late model cars can't be installed without the job becoming involved in any drastic changes from the pictures in this story. The main problems are to anchor the handle beneath the dash and to make sure that you have the proper leverage on the

cable. Some hand brakes have leverage built into the handle action but others, like the late Ford, depend upon an actuating arm beneath the car to give the proper leverage. In any event, a straight pull on the rear wheel brake cables without leverage is going to make it almost impossible to really get those brakes set.

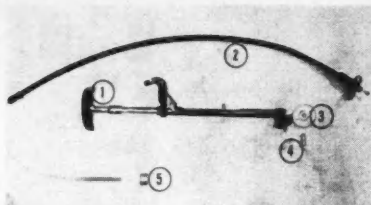
A lot of cars which formerly had mechanical linkage to the wheels are now running around with hydraulic brakes, but too many of these cars were never refitted with emergency brake cables after the changeover. It is really not a hard or expensive job, so follow the pictures in this story and you will be in business.

FORD PART NOS.

- | | |
|---------------------|------------|
| 1. Actuating Lever | 1A 2121-B |
| 2. Rear Cable Ass'y | 91A 2275-B |
| 3. Cable Equalizer | 91A 2119 |
| 4. Brake Arm RH. | 91A 2103 |
| 5. Brake Arm LH. | 91A 2109 |
| 6. Horseshoe Locks | 91A 2106 |
| 7. Brake Arm RH. | 91A 2108 |
| 8. Brake Arm LH. | 91A 2104 |
| 9. Clevis | 91A 2121 |
| 10. Adjusting Rod | 8A 2628-A |



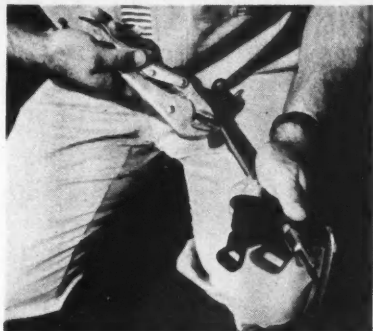
These are the parts which were used between the actuating lever and the rear wheels. Some are late model, the rest are 1940 emergency brake parts to operate brake hands.



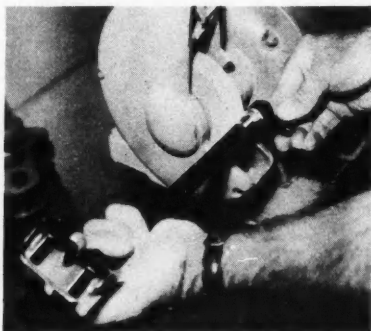
1. Hand Brake Ass'y
2. Front Brake Cable
3. Pulley
4. Clevis Pin 5/16"
5. Adjusting Nut

AB 2780-AP
 AB 2853-D
 OM 2804
 73931-57
 8A 2091

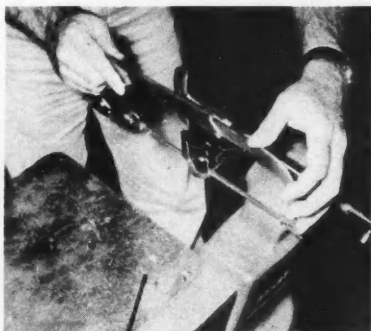
1. The '54 Ford hand brake and front cable here retail for approximately ten dollars.



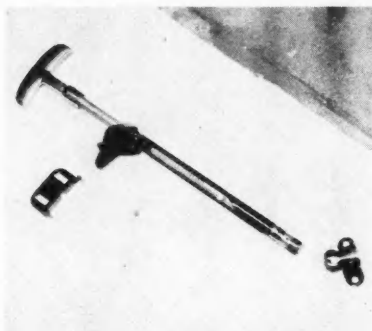
2. The guide pin is pulled from the brake to break down the assembly for modifying.



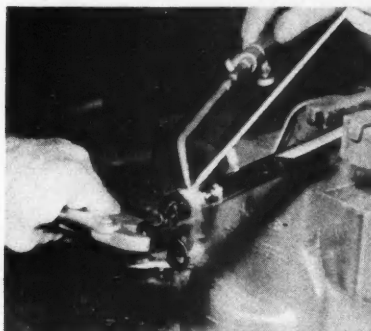
3. Pulley bracket to tube weld is ground off so that bracket position can be changed.



4. Mounting bracket on hand brake tube had to be cut and altered to fit early Ford.



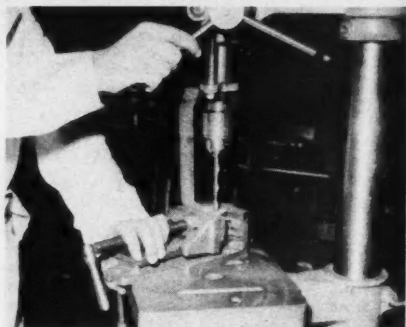
5. Here is brake before installation after the mounting brackets have been altered.



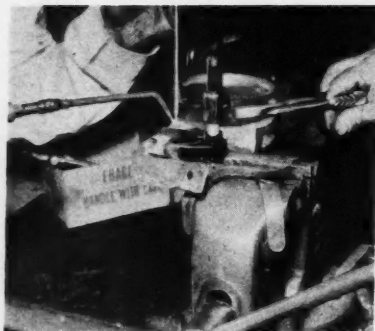
6. Bracket for cable pulley is brazed back onto tube after being aligned to fit firewall. ➡



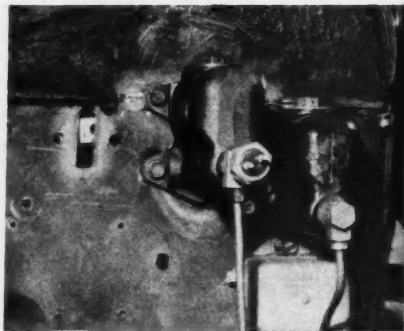
7. Brake can't be hooked onto tank, so template is formed between usable points.



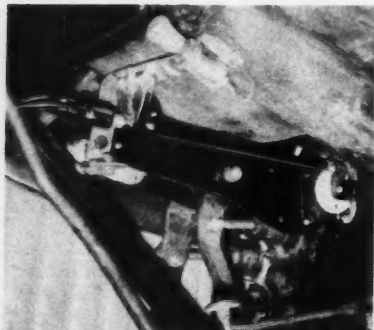
8. Strap iron is formed to match template. One end will anchor to pedal bracket.



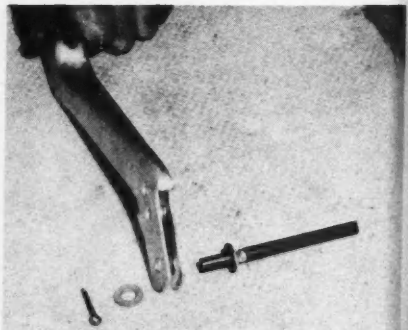
11. Strap iron and hand brake are brazed together following chalk positioning marks.



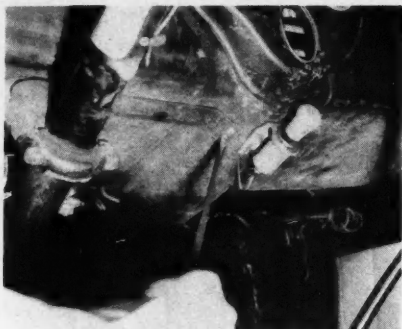
12. Vertical slot is cut in firewall with torch to let cable pulley project through.



15. From the inside of the car, here is what the late hand brake looks like hooked up.



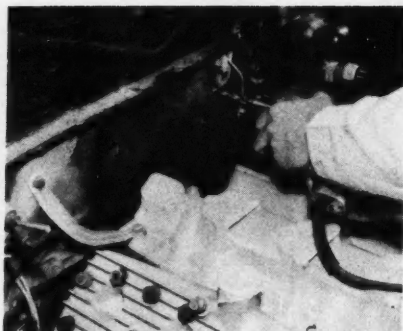
16. Actuating lever and long $\frac{3}{16}$ pin made from drill rod. Lever is mounted under car.



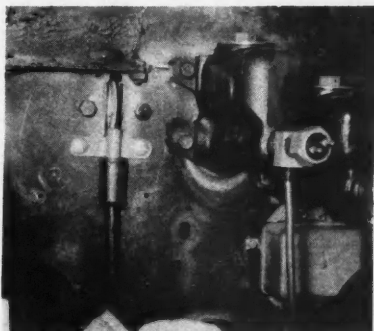
9. One end of bracket is anchored onto dash housing of Model A with metal screws.



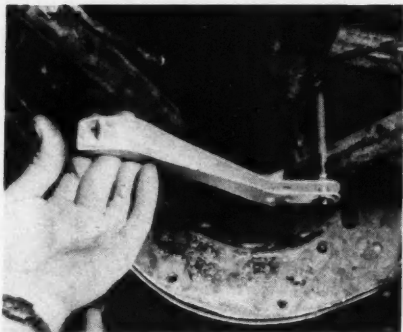
10. Hand brake is positioned beneath tank and location marked on strap iron bracket.



13. Holes are drilled in firewall to anchor sheath of cable leading to actuating lever.



14. Completed view on firewall side shows upper end of front brake cable and pulley.



17. Lever is held in position to insure clearance and pin arc-welded to radius rod.



18. Completed hookup beneath car. Cables at right lead to wheels, other to hand brake.

PART II

MICRO MIDGETS

How much do they cost?



This one cost
\$150.00

By Ray Brock

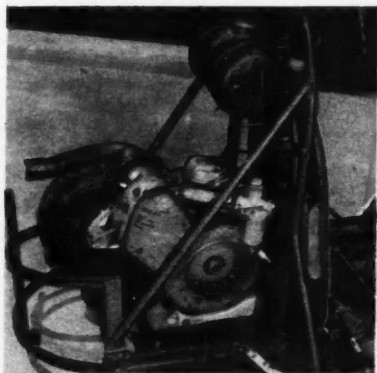


LAST MONTH, we brought you part one of a three part story on Micro Midgets with the emphasis directed to track operation and club organization. This is part two and we hope to bring forth plenty of ideas so that those of you who have been writing for building tips will have a wide variety of chassis examples to choose from.

The three cars which we will feature, range in building price from \$150 to \$1,000. Don't think that the cost of these cars always indicates their ability, because, at the time the pictures were taken, the cheapest of the three was the number one car in point standings for the association.

Bob Onstenk is the owner and builder of

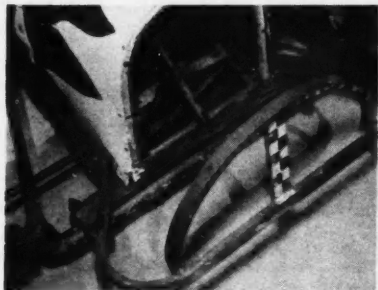
car number 4 shown on these first two pages and this can certainly be called the economy model. Bob spent \$150 in cash and came up with such money saving items as old bed rails for the frame, some one-inch cold roll for the rear axle and a plumber's nightmare of 1 1/4 inch water pipe for the front axle. An old Salisbury engine cost \$25, wheels and tires ranged from \$5 to \$10 apiece, and most of the rest was just plain Onstenk ingenuity. Bob is one of the first to admit that his car is no jewel, but, on the other hand, maybe he has a diamond in the rough, because he does manage to show the rest of the boys the short way home more than his share of the time.



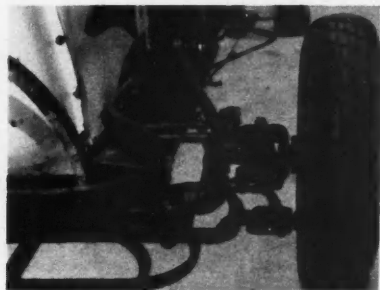
Rear mounted Salisbury engine is left uncovered for cooling, has 8-1 reduction drive.



The economy model brake. A piece of light sheet metal with lining riveted to it.



No such thing as a fancy steering gear on Onstenk's car, just a simple kiddy car type.



Front axle was made from 1 1/4" water pipe, pipe elbows and odd pieces of strap iron.

MICRO MIDGETS *continued*

\$500 went into this car

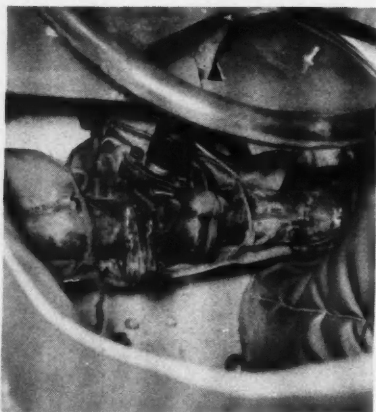


CAR NUMBER 102 is a good example of a large number of the cars running in the Southern California Micro Midget Association. The body is a commercially produced fiberglass shell designed for $\frac{3}{4}$ midgets and costs about \$150. Both front and rear running gear were formerly used on a small American Austin and the wheels came from both Cushman and Salisbury motor scooters.

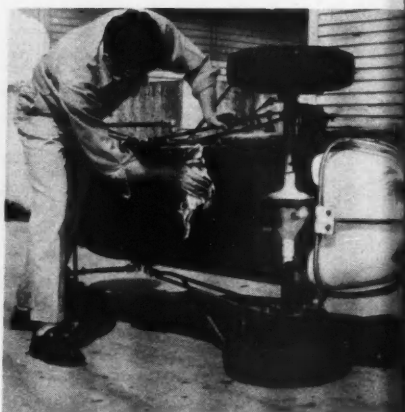
Prices are higher on this type car than on Onstenk's car, with Harry Ringer reporting that he invested nearly \$500 building car 102. Some cars of similar design have been

built for around \$350 but with an outlay of \$150 for the body, \$30 to \$50 for running gear, \$50 for engine, and the cost of machine work to adapt some of the various parts, the \$500 mark can be reached in a hurry.

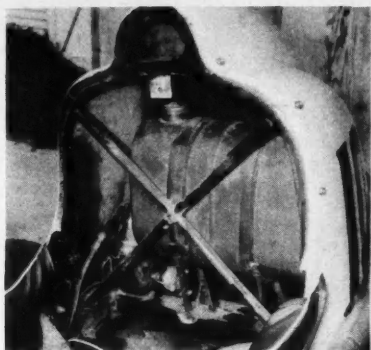
Number 102 was originally built to run as a $\frac{3}{4}$ midget but lack of TQ racing in the Los Angeles area caused Harry to switch to Micros. One barrel was pulled from the Harley 45" engine to get down to the 23 cubic inch limit of the SCMA and although the car is a little heavy, 102 does run up front most of the time.



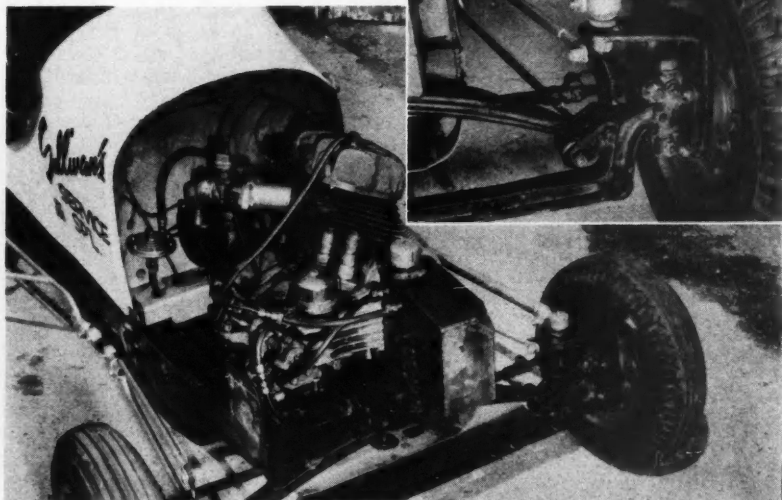
Steering on Harry Ringer's car was taken from old Salisbury three-wheeler. Cockpit padding protects legs on a rough track.



With car 102 tipped up on two wheels, belly pan can be easily cleaned. Rear end was modified from a 1931 American Austin unit.



Tail section of the fiberglass body houses fuel tank for alcohol, electric Auto-Pulse fuel pump and sturdily braced tubular roll bars. Tailored upholstery was made by Keith Howser. Surplus aircraft seat belts are fastened securely to the frame rails.

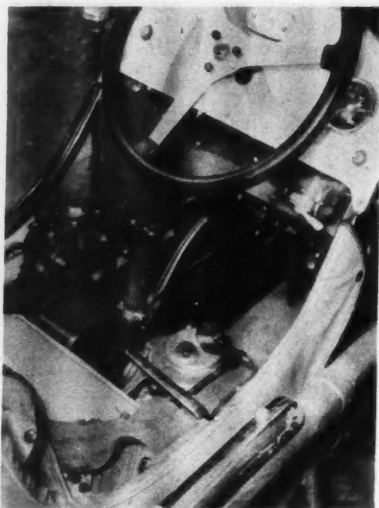


Front end view of car 102 discloses the Harley 45 cubic inch engine with one barrel removed. Dry sump oil system recirculates oil from tank over front axle. Inset shows front axle which is stock 1931 American Austin that has been narrowed five inches.



This car represents the absolute extreme in Micro Midgets. The body is one of a kind made from aluminum, suspension is full torsion bar and all running gear is special made.

MICRO MIDGETS continued The ultimate in design cost \$1,000

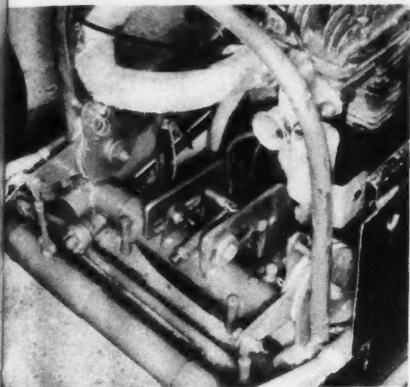


Cockpit view reveals master cylinder for two rear wheel brakes. Metal housing over primary chain, Norton 4-speed gearbox.

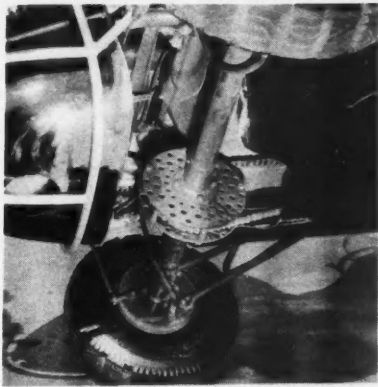
THE EXTREME opposite of car number 4 is car number 7 featured on these pages and owned by Johnny Hysinger. Johnny bought the car and since he is owner number three, can not really give an accurate estimation of its original cost. Several people familiar with the car have guessed the cost in the neighborhood of \$1,000. The car is $\frac{3}{4}$ midget in size and actually is almost a miniature Indianapolis type car.

Hysinger's car is one of the few which is also equipped with a transmission and clutch. Micro rules will not allow changing gears during the race however, so the Norton 4 speed cycle transmission is not used except for tuneup runs around the block during the week.

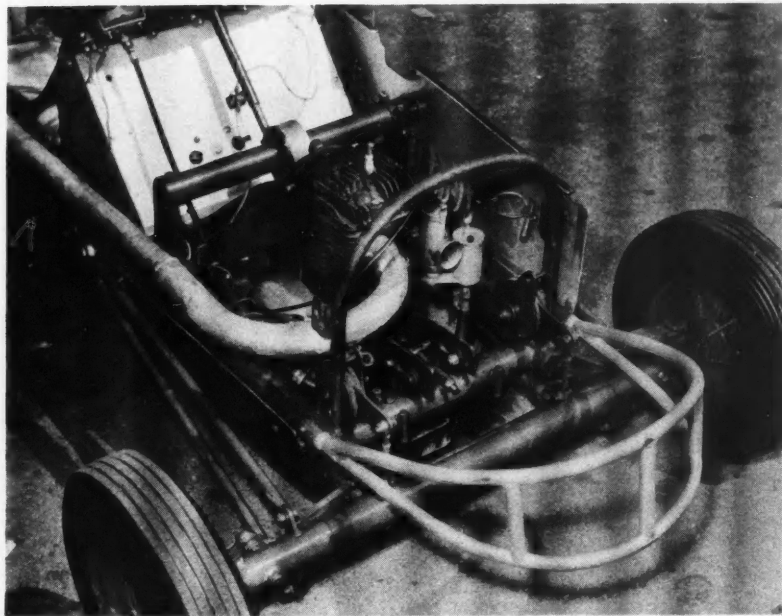
The entire car is a handmade item all the way from its aluminum body down to the hydraulic brakes. In the SCMEA, this car is in a class of its own. This is not to infer that none of the other cars can stay with it on the track but merely to point out that it is without a doubt the most intricately built and therefore most expensive car in the association. Johnny has recently set the torsion bars and reworked Mustang engine combination to the right degree of adjustment with the result that, although it is fairly heavy, the car is getting good traction, power and quite often the checkered flag first.



Minus nose shell, torsion bars can be seen beneath frame tubes. Note engine adjustment brackets to allow for sprocket changes.



Rear end is completely home machined including brakes, axle and housing. Car 7 is one of few Micros with hydraulic brakes.



Friction type shocks are used on the rear as well as the front and were homemade. Engine used is a reworked Mustang scooter engine which has been completely souped up.

CONTINUED ON PAGE 64



By Bob Greene

THE YOUNGER SET
WOULD PROBABLY CALL
SHAFFER'S LITTLE BOMB

"REAL DARK

YOU MIGHT call it the car that never grows old, the ageless one, the '32 Ford roadster. And still another version of the sweetest car this side of the Model T pops up with the appearance of Ted Shaffer's dark green (it really is) deuce from San Francisco, California.

If you can shift your eyes from that sparkling Merc mill for a moment, we'll turn to a less glamorous but interesting series of modifications that has all to do with the rakish lines of this fine little rod. To bring the back down to match the diego'd front end, the



Photos by Pete

K GREEN" BUT US ELDER SQUARES CALL IT—TOO MUCH!

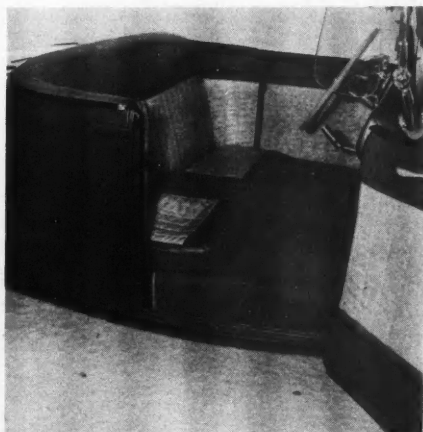
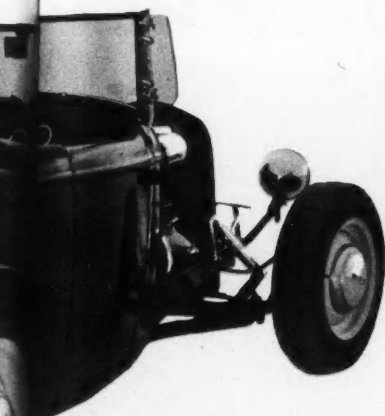
frame has been stepped up at the rear 5 inches and the stock arched rear crossmember replaced with a straight beam (the frame terminates at the crossmember). From the shot of the interior, you will notice the huge drop gained by channeling the body down over the frame.

The engine in Ted's deuce isn't big and it isn't radical, a 59-A block with near stock bore (.060 over) and stock stroke. A Winfield R-1 cam (about the equivalent of a super grind) operates Johnson adjustable tappets and stock valves against Lincoln springs.

Seven and a half to one compression is the result of J.E. solid skirt pistons and Weiland heads. Induction is handled by a D-S low-type dual throat manifold mounting Stromberg carburetors. Ted figures the little 248-cubic-incher is pumping about 150 horsepower at the flywheel, on gas.

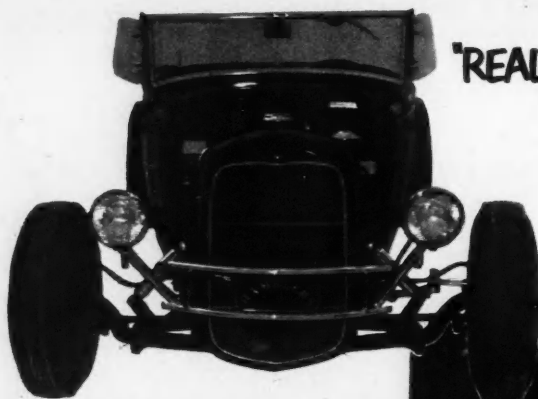
Power take-off is from a 12-pound Weber aluminum flywheel, through a standard Ford clutch and '39 gearbox and out to a Ford straddle mount rear end of 3.78 to 1 ratio. Tires installed on the rear wheels are 7.60 x

(Continued on page 27)



Ted stated that he built the little green roadster strictly for pleasure and also because it offered him a chance to participate in hot rodding activities. Well, here's the most contented look we have ever seen, and as far as activity goes, what could be more ideal than to watch the complete '54 Bonneville meet from the cockpit of a deuce?

The cockpit arrangement is precise in detail. The deep channel of the body accounts for the large driveshaft tunnel dividing the seating layout. The top rear section of the stock seat was retained, but the lower section was discarded and the two small pillow pads installed for the derriere. Interior upholstery consists of green Naugahyde.

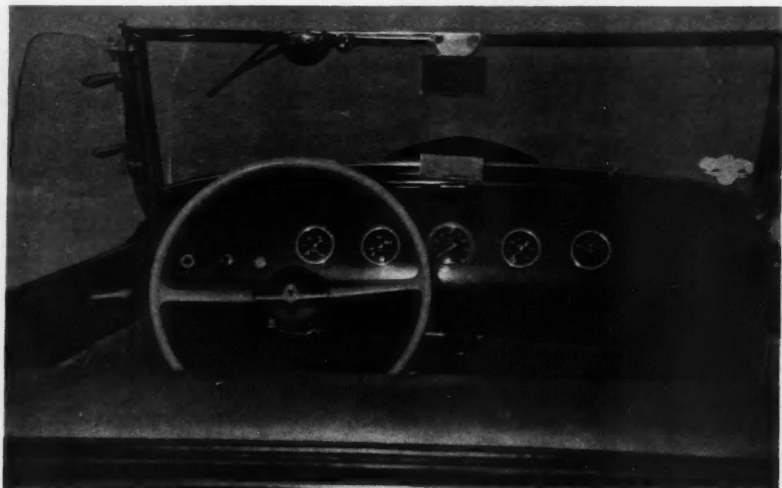
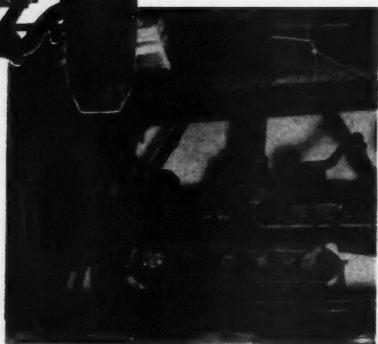


"REAL DARK GREEN"

continued

Every view of the car displays the traditional hot rod theme, sans fenders, smooth '32 grille and the classic fat belly line.

Due to the stepped frame, the deck flooring was removed. Gas tank sets close to cockpit, battery is placed in trunk quarters, also.

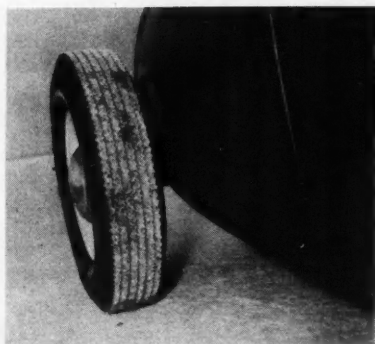


Stock dash has been filled and molded off in true roadster style. Gauges are installed in easy-to-see position. Original price of car was \$400, now reaches approximately \$1500.

(Continued from page 25)

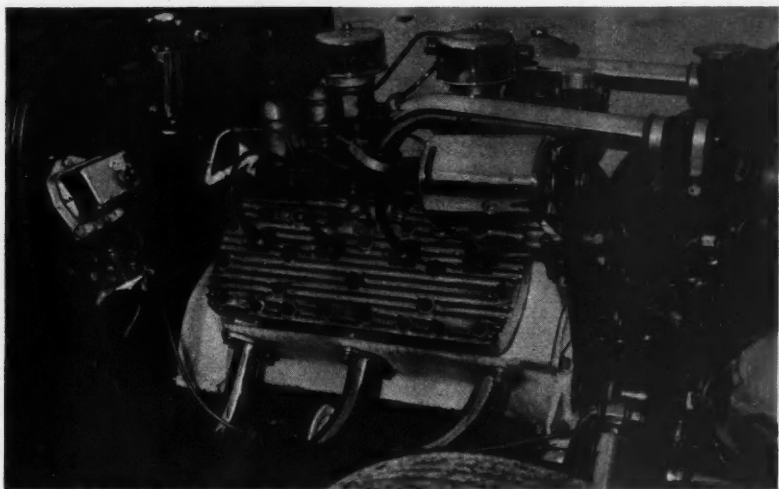
16-inch, 5.50 x 15-inch tires are used in front.

And, why did Ted go the hot rod route? Well, aside from helping him to realize a desire to build and drive a car of his own prescription, the roadster enabled Ted to become a member of organized hot rod groups, taking part in their many activities and exchanging ideas with the boys that know their stuff when it comes to makin' 'em go!



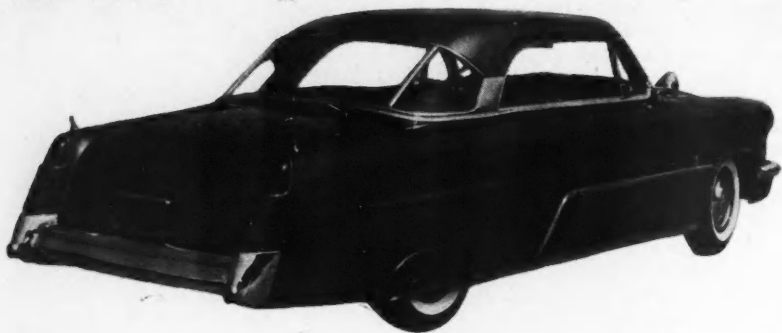
Note the front shock bracket arrangement. Steering was scrounged from a '52 Ford.

The rear wheel body cut-outs have been filled in flush with addition of sheet metal.

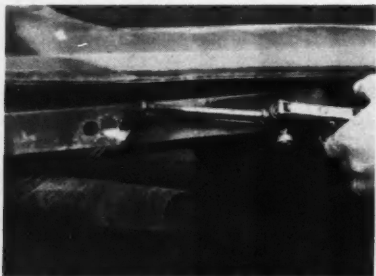


A '46 Merc 59-A block is basis for Ted's powerplant. Speed goodies consist of stock Winfield R-1 cam and Lincoln valve springs. Heads are Weiland and manifold is D & S.

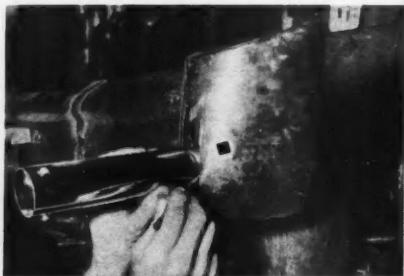
HERE'S HOW:



BUMPER EXHAUST TIPS:



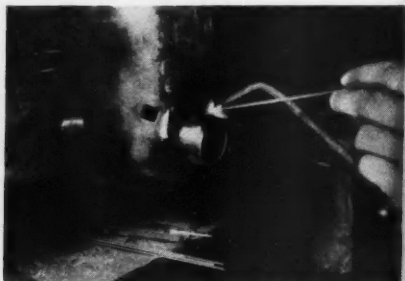
1. First remove bumper. Where tip meets bumper you'll have to notch out bracket.



2. Next, select the size of tip you wish to use and scribe the diameter off onto bumper.



5. From inside the bumper, position the exhaust tip at a perfectly horizontal angle.



6. With tip in its correct position, weld it to bumper completely around the outside.

BUILDING A CUSTOM

PART IV

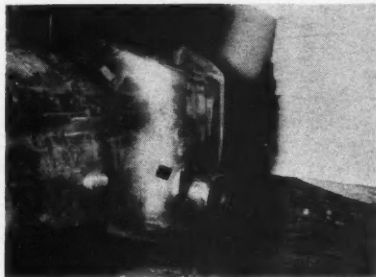
IT'S INTO the homestretch this month as we hammer away at our custom-to-be. A number of readers will be very happy to see that we have finally arrived at the airscoop department, which seems to be one of the most important phases of the car's design. For those of you who might want some additional styling ideas along the simulated airscoop theme, before breaking out the ol' mixing gun, check out pages 52 to 55 of this issue.

The bumper tip exhaust system shown at the bottom of these pages can be finished off

in two unique fashions. One, of course, is the method illustrated below, of welding the exhaust tips to the bumper and molding them in to look like one component. This method requires rechroming the bumper, which means an extra fifteen or sixteen bucks in cost. The other method is to follow the step-by-step directions up to step number three, then use a hole saw to remove the plug from the bumper for the tip to pass through. The exhaust pipes will have to be supported from behind the bumper with brackets but rechroming will not be necessary.



3. Using a cutting torch, remove plug from the bumper following the scribed lines.



4. Check-out fit of tip. When cutting plug, cut slightly inside of line for a snug fit.



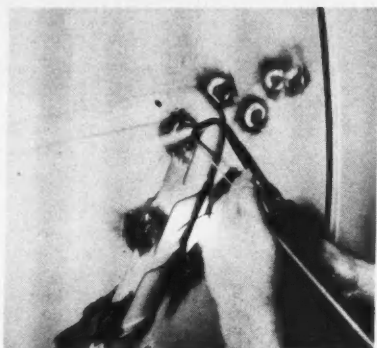
7. An electric grinder is employed to grind and contour welded area and tip to bumper.



8. The last job before bumper is rechromed is to finish off the tip with a hand file.



1. First step is to remove the rear section of side trim making fender area accessible.



2. After removing trim, holes are brazed closed. Use wet pad to minimize warpage.



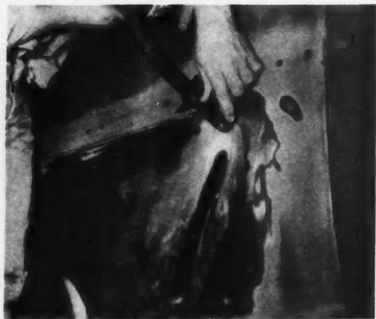
5. When fitting the rod to fender, a check should be taken occasionally for alignment.



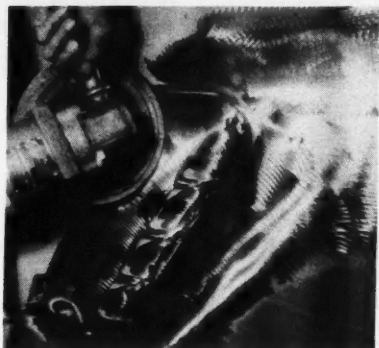
6. After rod's contour is perfect, rod is brazed solidly to the leading fender edge.



9. Lead is melted onto the surface and then fused together with waxed lead paddle.



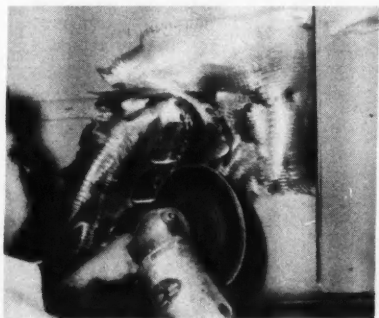
10. After lead has been roughly molded by paddle, finish contouring with vixen file.



3. Next, with a grinder set up with a 24 closed coat disc, grind paint from surface.



4. 1/2-inch hot roll round rod is bent to the contours of the leading fender edge.



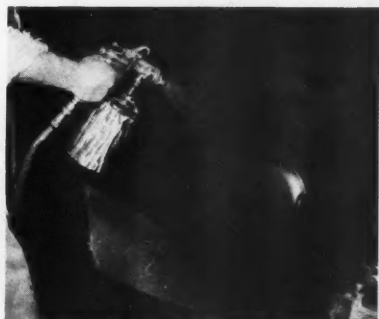
7. With rod brazed in place, thoroughly clean area with grinder and rotary brush.



8. The complete working area is now tinned, using soft flame from torch and small pad.



11. Clean bare metal with metal prep, the painted area with wax and grease remover.



12. Blocksand the surface with 220 paper (wet), then prime. Finish paint comes next.

STYLE REPORT



'53-'54 OLDSMOBILE GRILLE BARS

For his '50 Ford, Noel Thomas utilized bar from a '54 Olds. End sections were made into functional turning lights with handmade plexiglass windows. Chrome teeth, top and bottom, are off '54 Ford truck.

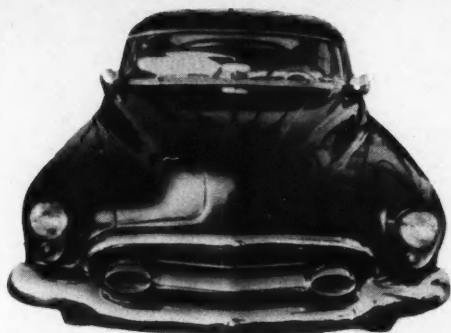
THERE'S NO doubt as to the popularity of the '53-'54 Oldsmobile's grille center bar. In one day's travel many can be encountered sneering from the front of everything and anything. The versatility of this component should never be overlooked when planning to restyle a grille for, like the Pontiac bar, it is just the ticket for easy installation. One of its novel advantages is that the oblong end sections can be converted into very unique turning and directional lights with little improvisation. Here are seven various adaptations.



Dealing with the wide grille styling of the '53 Ford, Joe Siegfried removed the stock Ford bar and installed this '53 Olds center bar. Installation consisted of merely unbolting Ford bar, strapping in Olds.

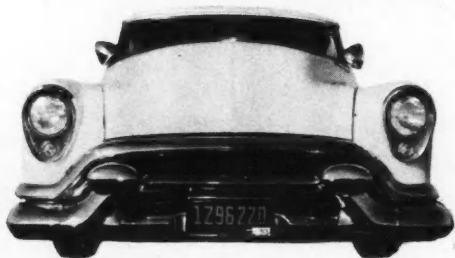
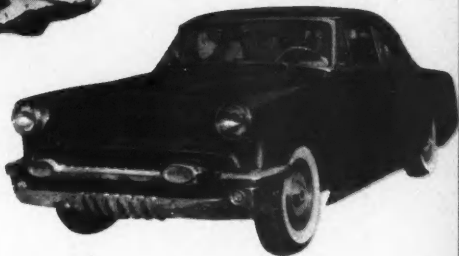
Quite an improvement can be made over the stock Oldsmobile by just adding the unique directional lights to the elongated end sections. Here, frosted plexiglass has been installed in small openings to serve as lenses.





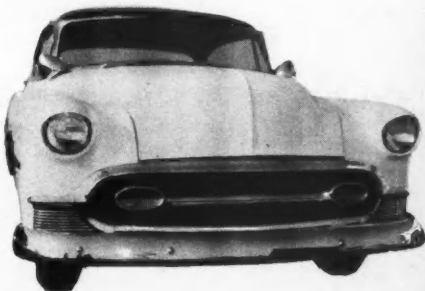
Late Buick grille opening will take the Olds bar, but bar will have to be cut in the center and a section removed from it in order to fit. On this Buick the bar was split and welded back together with a peak.

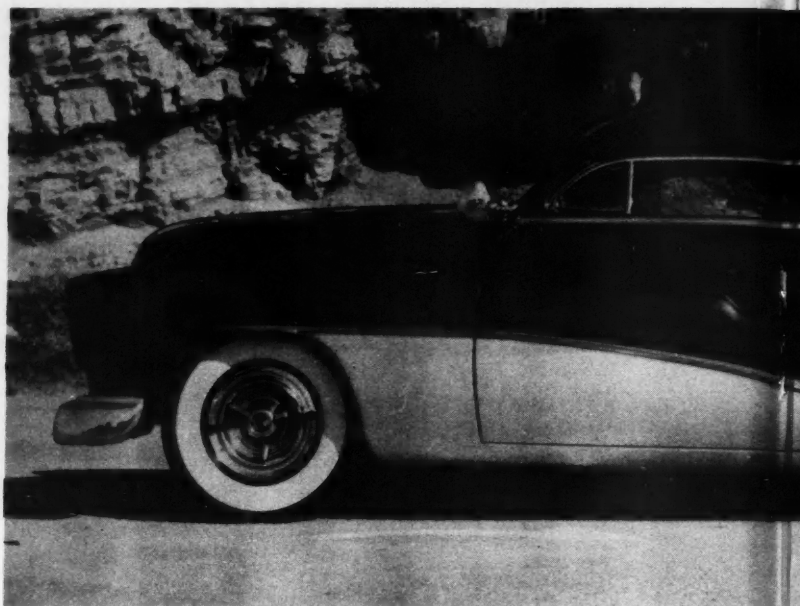
16. Halstead cut away stock center grille bar from his '52 Merc and recessed '53 Oldsmobile grille bar back into the opening. Remaining wrap around pieces of stock center bar were filled in with sheet metal.



Another neat trick for the popular Oldsmobile bars is to fill in the end sections with sheet metal, doing away with the stock convex styling. When this is done though, rechroming will be necessary when finished.

A more "natural" than a '53 Chevrolet just isn't to be found. Its stock opening will accommodate the Olds bar with no strain and the outcome is great. Remove Chevy bars, simply bolt Olds bar into opening.





cover car:

Metal Showcase

A little here, a little there, put
Dave Burgarin on cloud nine

Photos by Eric Rickman

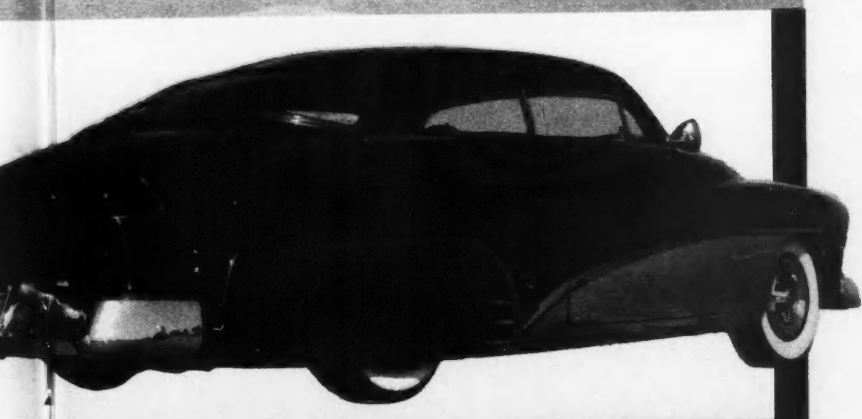
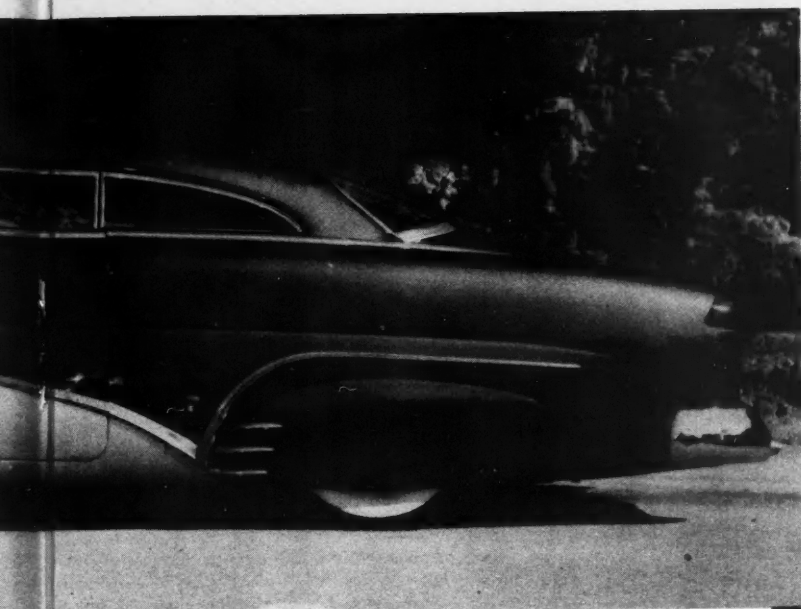
MANY MOTIVES can be found behind the basis of car building. One for the books is this story of Dave Burgarin, a young resident of San Pedro, California. He directly attributes his custom car ambitions to the former Los Angeles Motorama Auto

Show, now called International Motor Revue.

Dave has been a custom enthusiast ever since he walked through the portals of the Pan Pacific Auditorium that housed the '53 Motorama. He found himself hypnotized by

(Continued on page 36)





The most enhancing element of Dave's car is the greatly accentuated length. This was accomplished by lowering top, extending the front and rear fenders approximately five inches, radically lowering the body of the car and utilizing the long slender '54 Buick side trim.

(Continued from page 34)

Bob Hirohata's popular '51 Merc custom. That's all she wrote—Dave was determined that his semi-customized '51 Merc squatting outside the auditorium was going to be just as great as Hirohata's fantastic job. And, when the Motorama show came around the following year, he and the car would be on the inside looking out, instead of playing the role of the spectator.

The first step toward his dream was to check in with the Barris Brothers' Custom Shop, who was responsible for building Hirohata's car. Here he was enlightened as to the cost of his project and realized that the till at home was slightly short of cash. He did have enough, though, to go ahead with the initial step of chopping the top, so—the shop's chopping section began to shake, rattle and roll!

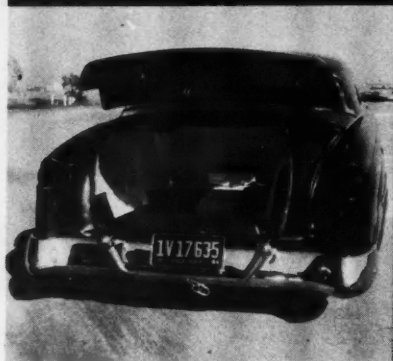
A three-inch section was removed from the windshield posts and five inches were taken out of the top's rear quarter panels. The terrific alteration in style is due to the doors and window treatment. The upper sections of the doors were chopped off at window level and then welded solidly to the top, narrowing the windows' width considerably. The center posts dividing the side windows

were removed. The loss of body strength was replaced by adding more meat to the top along the rear quarter panels. This also helped to narrow down the side rear windows. This left the windows, from the top of the doors up, without supporting frames. To solve this problem, 18-gauge sheet metal was cut into strips, then sent to a sheet metal shop to be bent in the form of channel. Once in channel form, it was cut, spliced and formed to the window contour, then welded solid to the top of the doors to serve as frames.

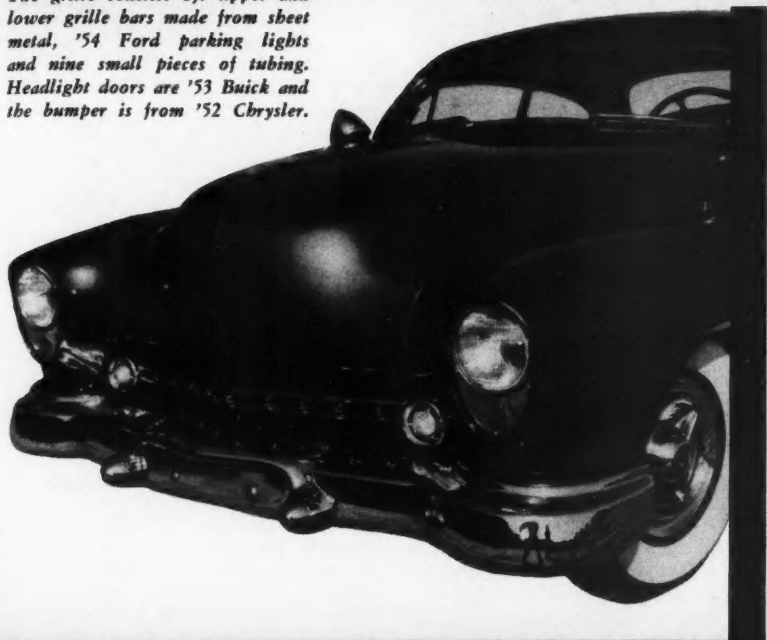
With the top completed, Barris summoned Dave to come for the car. Upon arriving at the shop, Dave didn't ask for the car keys but, instead, presented the brothers with a sum of money that he had earnestly saved during the time the top chopping session was in progress. His words were, "OK, now let's get the rear fenders, taillights and the grille." This was the way it went: one solid year of pay-as-you-go 'til his dream came true.

If you happen to be in Los Angeles this year around October and attend the International Motor Revue's dazzling display, don't be surprised if you trip over Dave's car as you come through the door, for that's just where it's going to be—way up front.

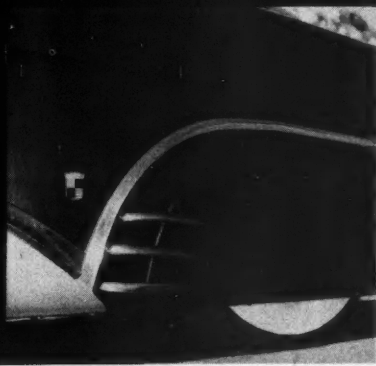
Taillights are from '54 Packard and have been installed without the stock chrome frames. Tubing was used to obtain the neat rolled edges. Rear bumper emanated from '54 Lincoln. Elaborate exhaust tips were specially made from various tips to simulate telescopic design. Trunk compartment has full treatment.



The grille consists of: upper and lower grille bars made from sheet metal, '54 Ford parking lights and nine small pieces of tubing. Headlight doors are '53 Buick and the bumper is from '52 Chrysler.



Picture at lower left clearly depicts method of welding the upper section of door to the top. Also shown is the stationary handmade metal channel which serves as window frame. At lower right, note the unique rear fender skirt aircoops. The chrome trim teeth are from the rear fender of '53 Chevy.



TORCH TIPS:

FRENCHING '49-'50 FORD TAILLIGHTS

By Dick Day

Photos by George Barris

FRENCHING '49 to '50 Ford taillights is anything but new to today's avid customizer. We have received numerous requests from readers asking that a "Torch Tip" article be devoted to this one particular item and, like always, what the reader wants—he gets!

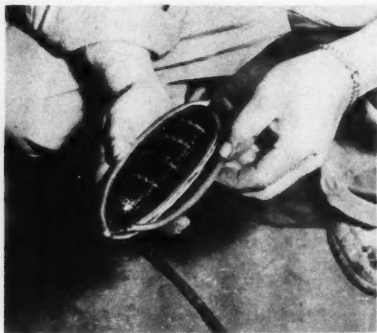
The secret behind this easy and inexpensive modification is to remove the outer chrome lens rim, lens and the taillight's bucket as one unit. This can be done by unbolting the two bolts that are attached to the taillight's bucket which passes through the fender. They

can be reached from inside the trunk compartment. This keeps the light, lens and rim together as one unit and when reinstalled, is adapted to the opening from the inner side of the fender making it waterproof and etc., as the following story clearly explains.

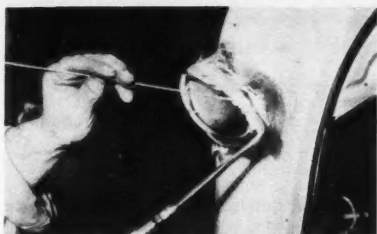
The '51 Ford taillight can be given this same treatment; only the long piece of chrome fender trim has to be removed and its attaching holes brazed closed. Also, the '51 taillight lens will have to be discarded and a '49 or '50 lens and rim used in its place. The stock '51 lens is too large.



1. First step after removing light, is to cut opening for lens with cutting torch.



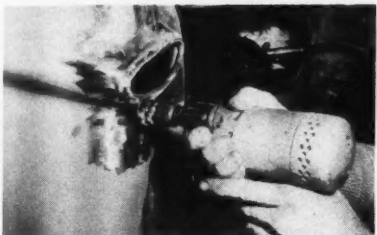
2. Quarter inch rod is formed to contour of the stock Ford's taillight lens and rim.



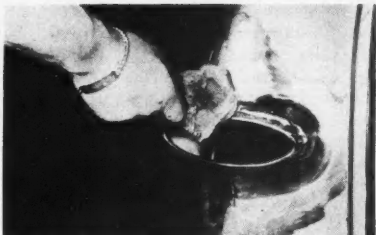
3. The working area is first ground clean and then the rod is brazed into position.



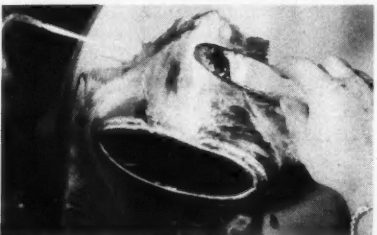
4. The opening is once again ground clean and semi-smooth with an electric grinder.



5. With a rotary brush and drill, the brazed beads and area are thoroughly cleaned.



6. Using a soft flame from the torch, tinning compound is scrubbed onto the surface.



7. After applying stick lead, patches are fused together and contoured with paddle.



8. Electric grinder can be used to finish off contour (a vixen file will suffice).



9. Apply metal prep solution to bare metal and wax and grease remover to old paint.



10. After priming surface and block sanding, light unit can be bolted in from the rear.

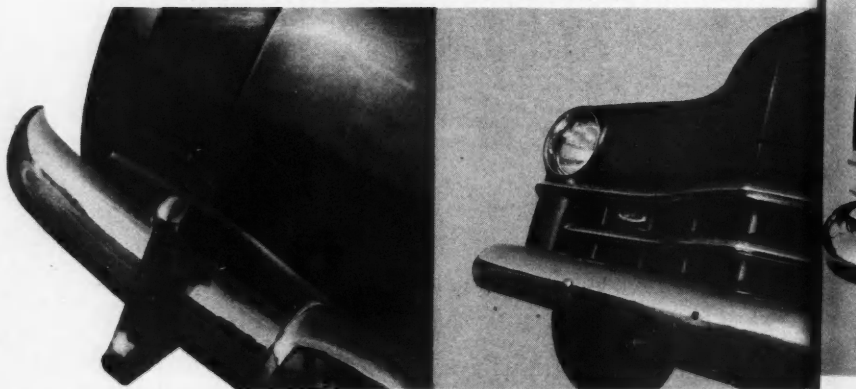
PLYMOUTH SMOOTHIE

CUSTOM car enthusiasts are constantly striving for that original appearance, some ponder over their dreamed-up restyling innovations for many long hours, assuring themselves of each idea's glamorous outcome. At the same time they're always keeping a sharp eye out for any duplication that might conflict with their uniqueness.

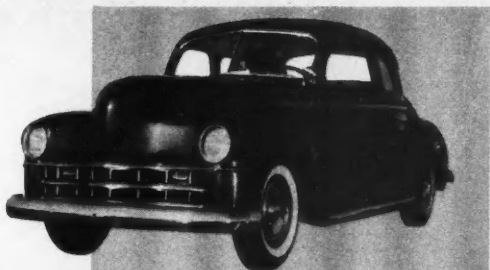
Like we said before, originality is almost always the motive, but there are a lot of escape chutes that can be taken to solve the problem. Take Willard Batey, a young resident of San Jose, California. He has the privilege of residing in one of the country's hottest areas for custom cars and hot rods. To come up with something completely different in this hot bed required some clever thinking. Will thought the situation out and decided to just reverse the common approach to customizing. Instead of starting out with the people's choice, such as a Ford, Merc or Chevy, he bought a '48 Plymouth club coupe for the basic ground work and went from there. He figured by using popular restyling components from the common customized make cars he could achieve an outcome just short of sensational for a Plymouth. After deciding on just what was to be done he unloaded the car onto Joe Wilhelm's Custom Body Shop of that area for all the body work. Joe, you may remember, was the man who did the beautiful work on Abe Sanchez' '51 Chevy, "Grape Country Custom" (CAR CRAFT, August '54). After Joe had finished the metal work, Batey turned the little jewel over to the ABC Upholstery Shop for outfitting the interior. This consisted of maroon and white rolls and pleats with a deep maroon matching floor rug.

Since the car has been completed, it has netted Will a couple of trophies for his mantle and aroused wild comment wherever it is driven. For you readers who have been writing in asking what is possible when customizing a Plymouth, this should give you some above par ideas.

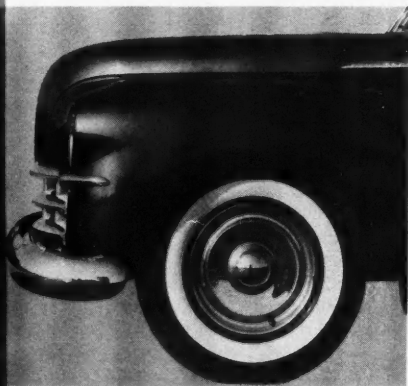
BELOW: '47 Olds taillights have been installed and exhaust tips are molded to bumper guards. Batey used '54 Ford headlight rings for frenching lights.



Some enthusiasts like that different approach to customizing — Here's Will Batey's answer



Photos by Ralph Poole



ABOVE: With a nominal amount of trim removal and filled body seams the Plymouth presents a smooth custom look. The car has been lowered approximately 3 inches both fore and aft. Door handles are removed and doors and trunk are operated electrically. The powerplant consists of '50 Chrysler engine. Exterior color is deep maroon lacquer.

LEFT: Looking at a direct profile, it's easy to see the restyling change that took place by utilizing similar '50 Chrysler grille and the very deep Ford headlight rings.



WRONG—Common mistake is filling holes with lead only. This will crack out in time.

do's and don't's on leading

Sometimes referred to as the backyard customizer's best friend — lead has its specific purpose and a correct method for applying

Photos by Bob D'Olive

LAST MONTH we dealt with the Do's and Don't's on Brazing. This month it's still the same pitch, except on "leading." You know, it never seems to fail, every time the term *lead* is used in connection with metal body work there seems to be a certain few that wince with a frown, as though they have just heard a nasty word. True, when a body man leans on this versatile product as he would a crutch, the finish work isn't worth the price of the material that went into the job. But, on the other hand, if this material wasn't available, you and I wouldn't be able to own a custom car because power hammers and the hammer welding process are strictly for Mr. Millionbucks.

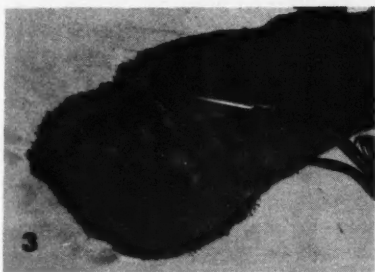
Many readers have written in asking where to obtain lead. This is a good question. The

best source for stick lead is a paint store that carries a large stock of automotive paint, etc. You'll find that lead comes in many varied combinations. The ideal mixture is called 30-70, indicating that 30 per cent of the stick is tin, and 70 per cent is lead. Mixture below this mark, such as: 40-60 and 50-50, are too soft for metal work and are usually used for radiator repair and electrical work. Anything above the 30-70 combo will be hard to work and a little on the brittle side.

In the following illustrated story you will find the correct way to apply lead to any metal surface along with a few of the common errors. We wish to thank George Cerny's Custom Shop in Compton, Calif., for furnishing us with the information and the following photographs.



RIGHT—First step before leading is to have perfectly bare, clean surface as shown above.



RIGHT—The flame used for tinning and leading should be one with a considerable amount of "feather" without excessive heat.



RIGHT—When applying tinning compound it is best to use a small steel wool pad for dipping into can and picking up material.



RIGHT—Before applying the tinning compound with the steel wool pad, preheat the surface of the metal for better adhesion.



RIGHT—Still heating the surface from time to time, scrub on the tinning compound. Tin out from working area approximately 1 inch.

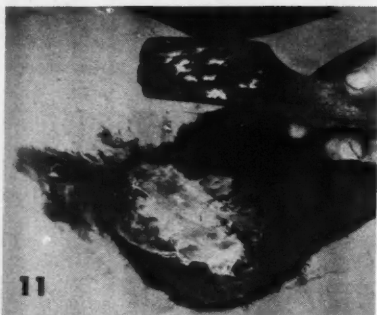
DO'S AND DON'T'S ON LEADING continued



RIGHT—Next step is to take a clean cloth and, by slightly beating compound, wipe the surface completely clean of any impurities.



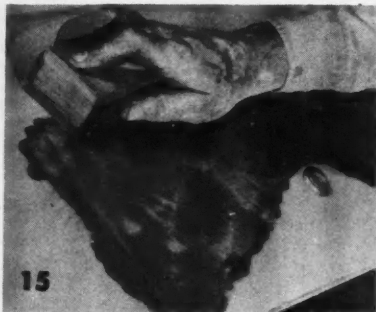
WRONG—Here torch is being used giving too much heat, consequently melting lead too fast, which is rolling off of the surface.



WRONG—Never use paddle to spread lead unless paddle is wax coated. Spreading will be difficult and lead will stick to paddle.



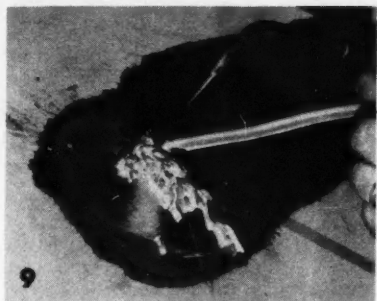
RIGHT—Beeswax is placed in a small container and heated with the torch, paddle is then rubbed in it, coating the bottom side.



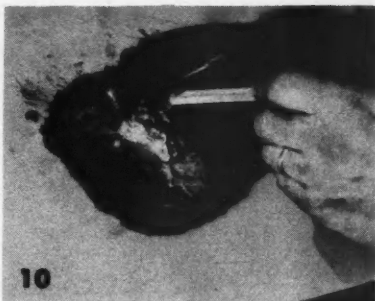
RIGHT—After surface is semi-smooth, block-sand old paint edges and the bare metal with No. 80 sandpaper (dry) or No. 220 (wet).



RIGHT—Apply wax and grease remover to the old painted area which will remove all the impurities, preparing it for primer coat.



9
WRONG—Here person applying the lead is making the mistake of melting too much on to the surface for amount actually needed.



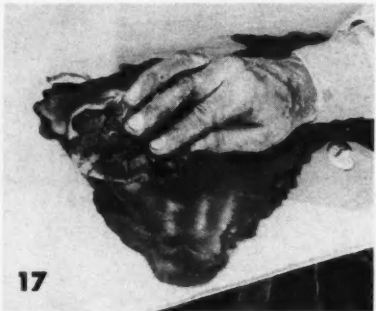
10
RIGHT—As you are melting the lead onto the surface, judge how much you will need. It's much easier to add than to take away.



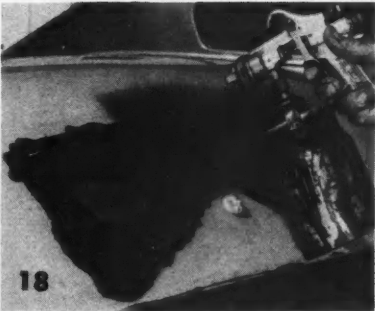
13
RIGHT—Heat lead patch slightly, then start spreading and contouring the lead over surface. Continue 'til working area is covered.



14
RIGHT—After lead has cooled, a vixen file is used to file surface smooth. When filing, file lead from three different directions.



17
RIGHT—Metal prep solution is also applied to only the bare metal, then wiped dry immediately. Do not let it dry on surface.



18
RIGHT—Spray surface with primer. First coat should be light, with heavier follow up coats. Sand out, then apply finish paint.



Don Chapman's Studebaker is one of a kind, being that it is chopped. Note improved proportion between top and body compared to stock.

When speaking of natural custom bait—
none can top the late Stude



OFF



...and ON



CUSTOM

SOMETIMES situations are inevitable—obligatory types especially. You know the kind, where possibly your father owns a highly competitive automotive agency and, if you are going to own and drive a car, you're sort of compelled to tool one from the ol' man's emporium. Well, this was the situation with Don Chapman of Huntington Park, California.

You see, Don's dad owns and operates a Studebaker agency. Don didn't balk at the idea of driving around in a spanking new '54 Stude, for he knew as well as the next custom enthusiast that there isn't a more *natural* on the market for customizing than this small, sleek appearing car. The only thing that the guy had his heart set on was a *convertible*, a model the factory hadn't popped up with as yet.

After Don had possession of the car for a few months, he began to hear rumbles that a couple of other owners in his position had gone the route, had hacked the hard top from the body of the car and come up with an off and on removable top. But what happens to the body strength when the top is removed? Don decided to check in with the body shop that had come up with this shrewd operation.

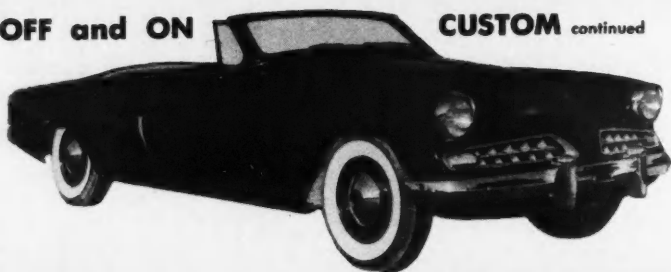
Confronting the Barris Brothers, who twice had performed this task, he was assured that the chassis and body were strong enough to withstand the removal of the top. With this, Don turned the car over to the shop and added—"While we're at it, let's chop the top, too!" The brothers eyes flashed in true custom glitter.

The first operation was the removal of the windshield, headliner upholstery and the window glass. Next, out came the hacksaw and air chisel. The top was cut loose at the top of the windshield posts. At the rear, the air chisel was used to cut around the top's lower contour where it and the body join. ➤

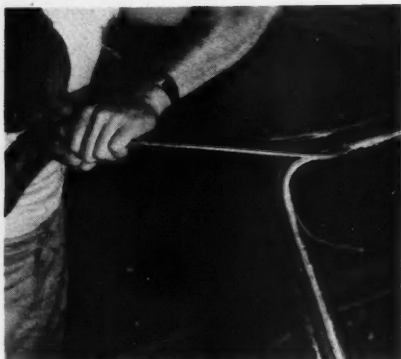
(Continued on page 65)

OFF and ON

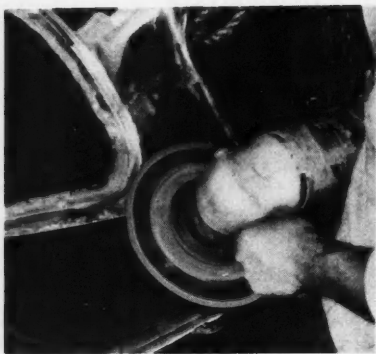
CUSTOM continued



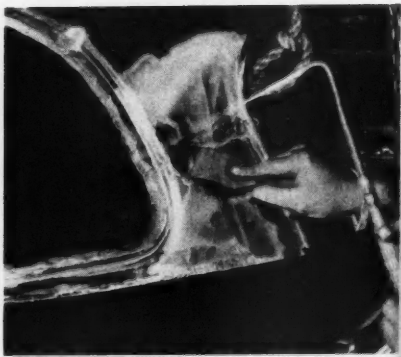
1. First step is to remove the headliner upholstery and seats. Next comes the windshield. The windshield frame and the glass can be taken out as one complete unit.



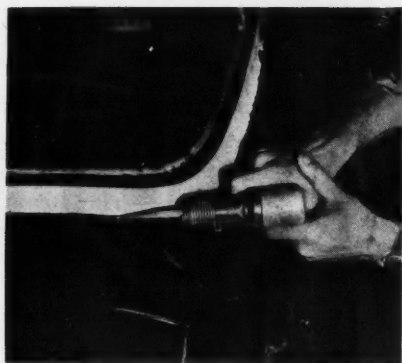
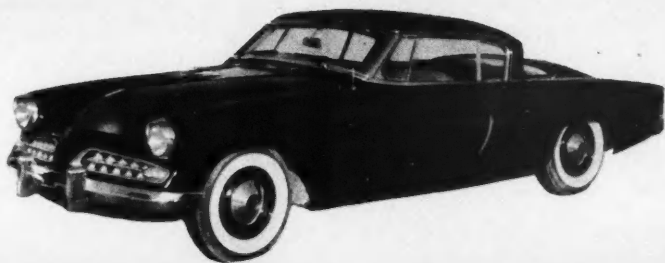
2. Next step is to break out the body man's scalpel, the backsaw. The top is freed at the front by cutting along the seam between the top and the upper windshield frame.



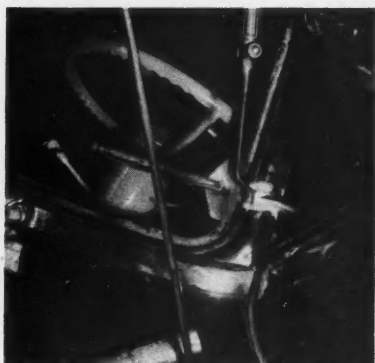
5. A three-inch section is removed from both sides of the top at the side paneling. Here you see area that has been chopped, and welded together being ground smooth.



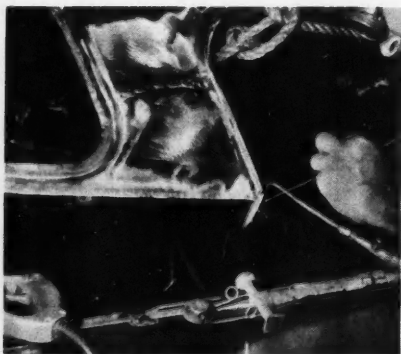
6. After both the front windshield posts and the rear panels have been welded together, grind them smooth with an electric grinder and then lead over the joined sections.



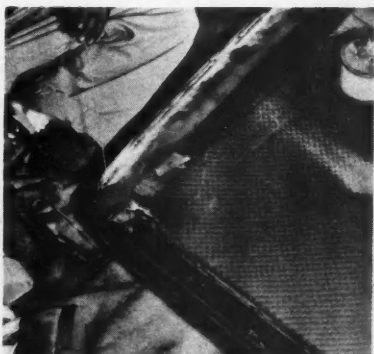
3. At the rear, before cutting is attempted, masking tape is applied along the top and the body seam to serve as a guide. Since this area is accessible, an air chisel is used.



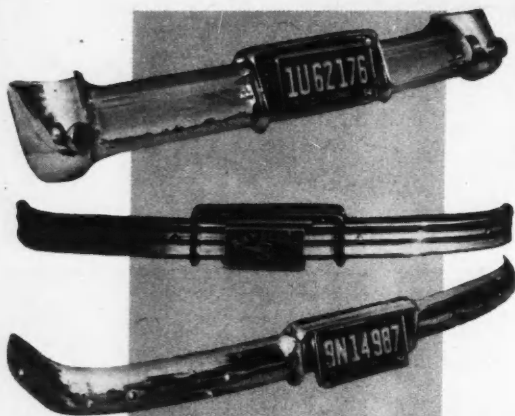
4. A four-inch section is removed from both windshield posts by cutting it with a backsaw. After the rear of the top has also been cut, posts are then welded together.



7. To give the top more strength, a heavy welded bead was tacked on to its underneath edge completely around the rear section of top. It will not show when top is on.



8. At the front of the top, a heavy gauge sheet metal plate was welded on, serving as a convertible bow for attaching. Regular convertible clamps are used to secure top.



License plates present an installation problem—but combined with the '49 Chevrolet front license plate guard, rear styling takes on a new look

Custom License Plate Guard

AFTER a customizer had worked long hours to achieve a clean and smooth appearance to the rear of his car, he always can look forward to facing the problem of positioning the license plate—but *what*? Another item that can prove to be brutal, if not stock, is a light for the license plate. One of the neatest tricks of the trade is to utilize a '49 Chevy's front license plate guard for a frame at the rear bumper. To make the legal hurdle, a small oblong license plate light can be purchased at your local automotive accessory store which can be spot welded up under the top rail of the frame neatly concealed—hence, your problems are solved. Of course, the frame will have to be cut to conform with your bumper's contour, but that's what this photo story is for!



1. First step after removing the bumper is to center the bracket onto the rear bumper.



2. Using masking tape to mark on, mark off the bracket's two end attaching holes.



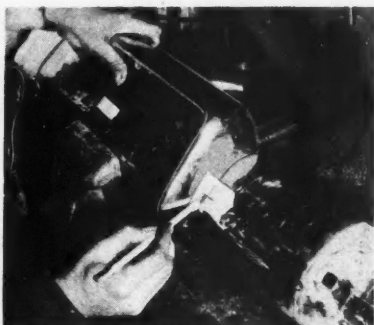
3. Place bracket into position and then mask off contour of bumper off onto bracket.



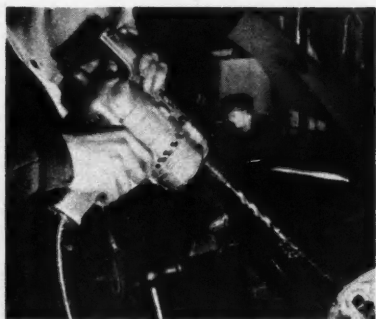
4. Secure the bracket in a bench vise and hand file to the masking tape's contour.



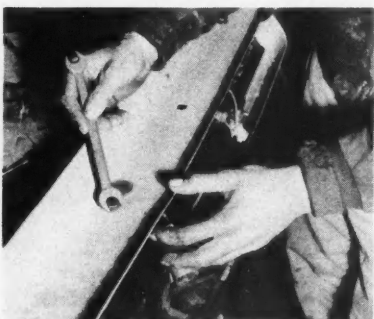
5. Place piece of masking tape on edge of bracket and mark off each attaching hole.



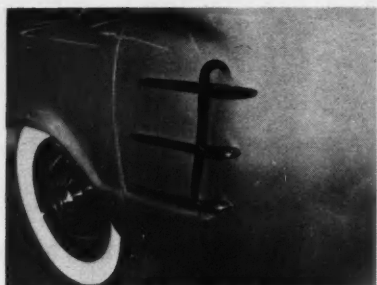
6. Align bracket to bumper, then mark off attachment holes' centers onto the bumper.



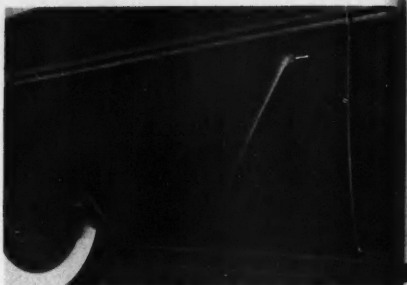
7. Measure attachment holes in bracket for size, center punch centers, then drill holes.



8. All that is needed now is to merely bolt on bracket. Light can also be added now.

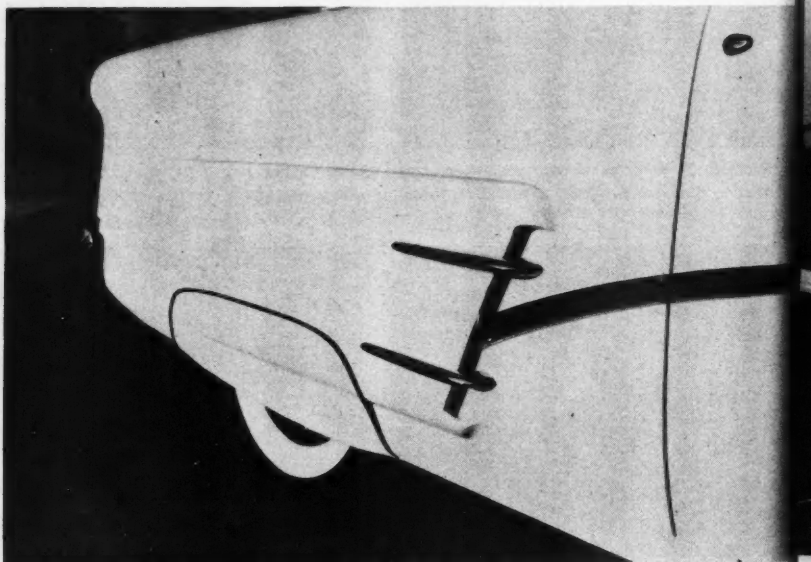


'51 Studebaker's rear fender contour has the making for a stylish airscoop. Chrome teeth are from a '54 Mercury's rear fender.



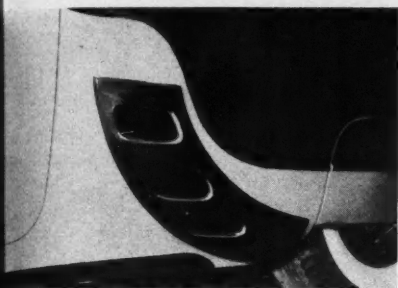
'53 Mercs are a natural for the airscoop action. Here, front fender edge has been cut away and tubing used for rolled edge.

"GRAB BAG"



The Ford, like its brother, the Merc, is also a natural for rear fender airscoops. This '52 Ford has had the front of the fender cut back with '53 Merc fender trim.

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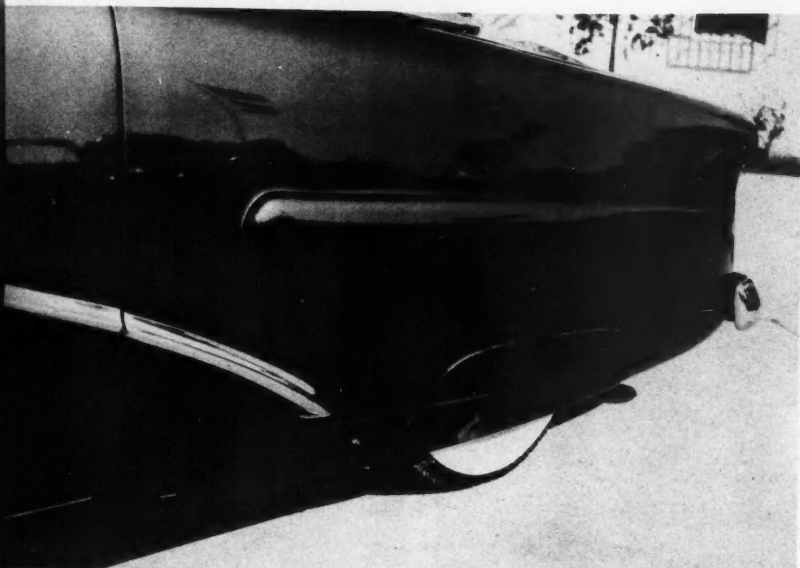


A neat trick for the '54 Pontiac is to cut out sections of the chrome fender trim and simulate small openings in black paint.

Racing design and Detroit's exclusive styling has brought on the custom air scoop craze

By Dick Day

This
trim.
RAFT



Here's practically the same modification as that on the opposite page, only without the chrome teeth trim. Side trim is carried off into scoop in true custom style.

JULY 1955

53

SEEMS THAT many folks lately are going for that racy air scoop styling, and we can't blame them. In competition they prove most functional and when applied to custom cars, fake or not, they just look plain *sharp*. We don't mean to say that you should sprint right out and chop a gaping hole in the car just forward of the rear fender. But, nevertheless, Detroit's latest body styles are such that they seem to invite the venting modification. Just to prove the point, here are fourteen examples that are easily improvised and are very novel in design.

For a step-by-step construction example on how to build your own air scoop check out pages 30-31 this issue.

"GRAB BAG"

continued



LEFT: Here late Chevy has had an opening cut into the rear fenders simulating an airscoop. Chrome teeth are '53 Merc.

CENTER: '52 Olds has natural lower fender contour for scoop. Leading edge has been opened with tubing used for rolled edge.

FAR RIGHT: This '50 Ford has a clever ornamental scoop cut into the lower body panels. Small chrome teeth are from '53 Merc.

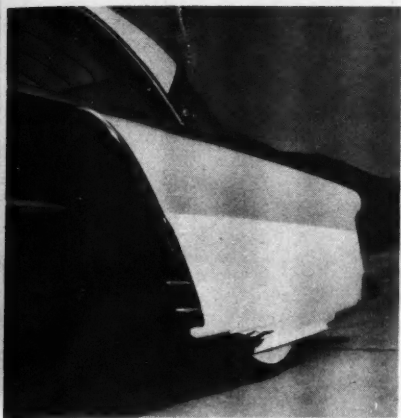


LEFT: '52 Merc fender's leading edge has been cut away and, instead of using teeth trim, close mesh screen is installed.

CENTER: '51 Merc has scoop built into lower body panel just forward of fender skirt. '53 Merc grille teeth make up trim.

FAR RIGHT: A small opening was cut into lower leading edge of '52 Chevy fender; three '53 Merc grille teeth adapted for trim.

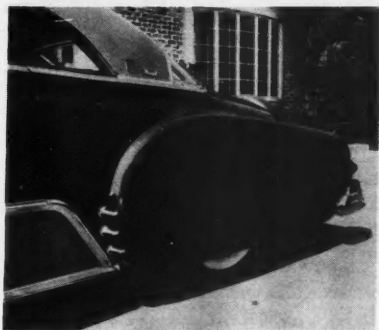
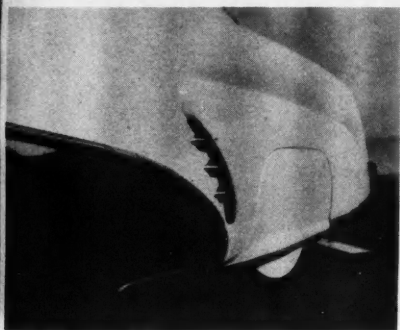
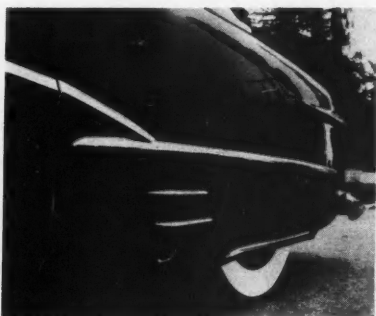
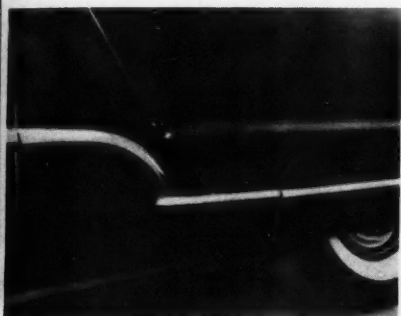




FAR LEFT: Stock '49 Cadillac's rear fender trim serves as ideal scoop material. Sections that are normally painted black have actually been cut out.

CENTER: An extra roll of sheet metal has been contoured to the top of this late Stude's rear fender, forming a small, unique scoop. '53 Merc teeth butt into edge.

RIGHT: This '53 Ford's leading rear fender edge was cut open and trim from '53 Olds routed into the opening. Again, '54 Merc rear fender teeth have been utilized.



A weekend on the ground for an Air Corps man
isn't complete unless he's got a little bomb
to make that "Forty-eight" in

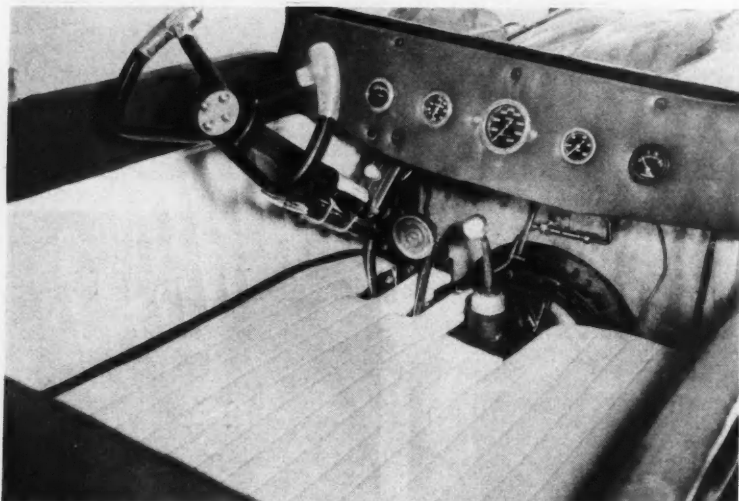
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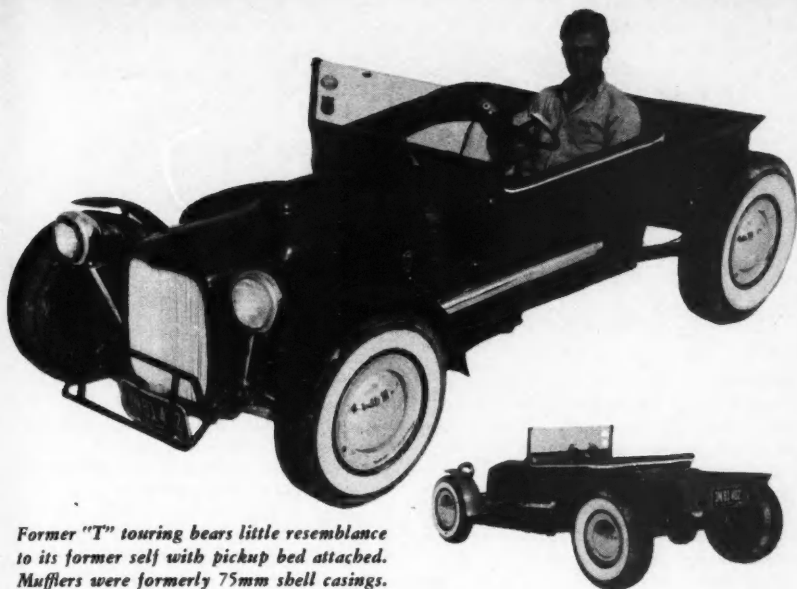
EVERY time you turn around nowadays, you see a pickup. Some are new, some are of the 1940 vintage and some even date back to the days of the first Model A Ford. With this big swing to pickups, it is only natural that bodies with good rejuvenation possibilities have become rather scarce. Bob Stokke found the answer to this problem with the help of Jack Hand and some other members of the Knight's Car Club in Long Beach, Calif.

With pickup bodies at such premium, a 1924 Model T touring was assaulted with a

hack saw and torch. The body was cut off at the rear door opening, the upper half of the windshield discarded, the bottom part of the body cut away and then the whole works was channeled over a Model A frame. The basic running gear is all Model A with a Dago front axle and '40 Ford hydraulic brakes. A few pieces of pine and plywood make up the cargo bed which is also the home of the fuel tank. There are no seats or doors in this little package, just a completely padded passenger compartment by Joe Ambrose of Long Beach.



Doors were welded shut and a complete rolled and pleated upholstery job applied. The red and white Naugabyde material matches the smooth red lacquer paint job used on both body and cargo bed. Steering wheel was formerly used in fighter plane.

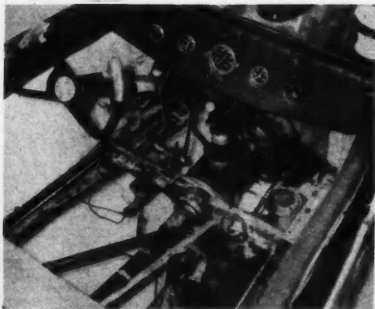


Former "T" touring bears little resemblance to its former self with pickup bed attached. Mufflers were formerly 75mm shell casings.

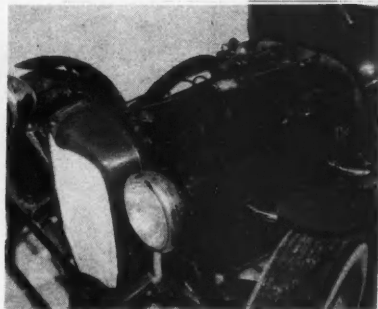
Bob built his first car, a '34 Ford roadster, when he was stationed on Guam serving a hitch in the Navy. After his discharge and a short stint as a civilian, Bob joined the Air Force and was stationed at March Field. This is when the idea for a combination street and competition pickup took shape.

The whole car is a homegrown project with the exception of the hood. A standard

hood would not clear the carburetors or generator, so professional help was called upon for this one item. Don't let that bubble on the right side of the car fool you. The first time we saw the car, we immediately thought that a big overhead valve engine was lurking in the dark. Actually, the extra bubble is merely to make the hood symmetrical in appearance.



Minus floorboards, the "A" frame rails with a '32 Ford crossmember can be seen. Pedal assembly is from '40 Ford, trans from '38.



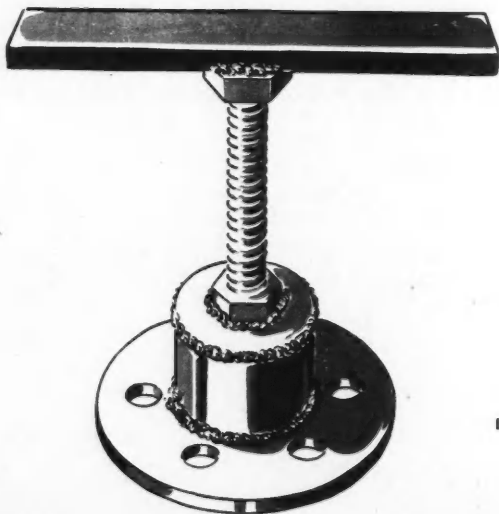
The stock engine has recently been replaced with a full house de-stroked mill which fits into "B" class for competition events.

Garage Gimmicks

WHEEL PULLER FOR TAPERED AXLES

THERE HAVE been untold numbers of axle threads and tempers ruined by home mechanics using the hammer and pry method to pull a rear hub and drum assembly from a tapered axle. The obvious and simple answer to this problem is a wheel puller, but, somehow, the price of a ready made unit is always a little hard to scrape up, especially when you are trying to maintain or build a car. If you have a few pieces of scrap metal around and access to a cutting torch and arc welder, you can make your own wheel puller and save money at the same time.

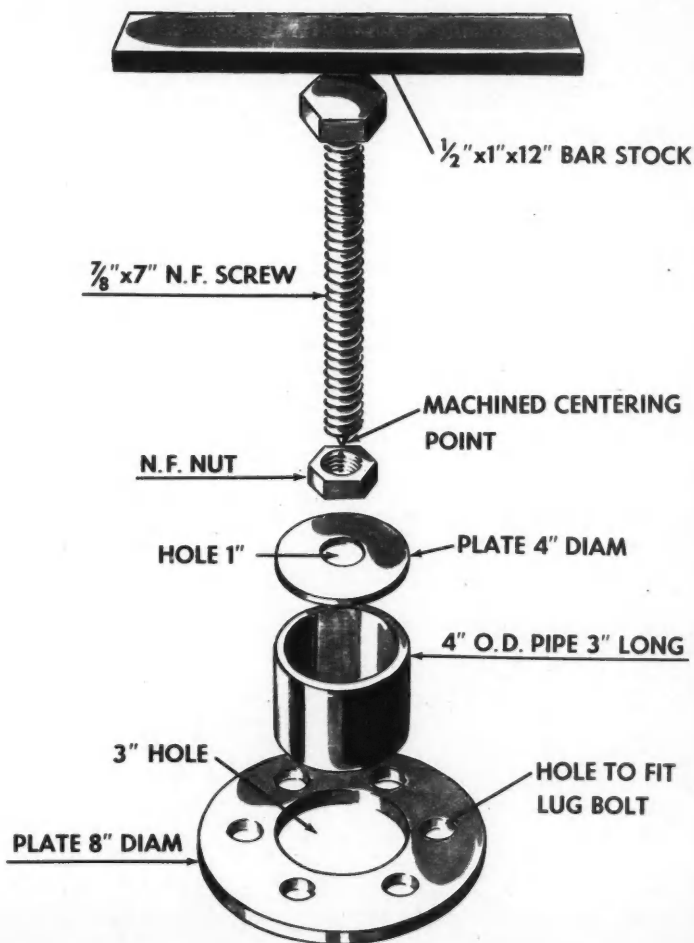
Galen White of Lawrence, Kansas, rummaged through his scrap metal box and came up with the puller shown in these drawings. The piece of $\frac{3}{8}$ inch plate used as the base piece of Galen's puller may be drilled to fit one particular car or a series of holes may be spaced to fit several cars. If the puller is to be used on one car only, an old wheel from the same type car will supply a base plate with the holes already drilled and spaced. Just cut an 8 inch circle from the center of the wheel and the bolt circle will fit your car.



Illustrations by
Don Fell

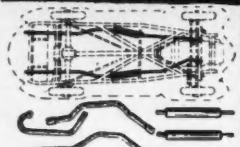
The puller made by Galen required a piece of pipe approximately 4 inches in outside diameter so that the inside measurements would be large enough to fit over the hub on his car. This measurement might have to be more or less on other cars. All that you have to do is measure the center hole of a wheel from your car and you will have the minimum I.D. pipe size which can be used by you.

Galen has shown you how to save money, now we'll tell you how to make some. Send in your own Garage Gimmicks! If you can't get a good picture to send in with it, don't worry because we have an art department which can make illustrations from the sketches and dimensions you send in. It can be the easiest \$20 you ever made and you might be able to solve another reader's problem.



Two Pages of Order-By-Mail Bargains from J. C. WHITNEY

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For ALL V8 ENGINES! All sets include:—
2 HOLLYWOOD TYPE MUFFLERS
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Dual flow installation eliminates 75% or more of the back pressure in existing standard equipment cars. Tests prove that these sets INCREASE HORSEPOWER as much as 7%. You get smoother—increased performance and better idling. All sets Custom Built for perfect fit. Easy to install.

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50-51	CADILLAC, except Convert.	27.18
1953	CHEVROLET, except Convert.	24.50
51-53	CHRYSLER, except Convert.	37.30
52-54	DESOIT, except Convert.	37.30
35-53	FORD V8, all models	19.95
54-55	FORD V8, all models	24.95
49-51	LINCOLN	24.71
52-54	LINCOLN	39.20
39-53	MERCURY	19.95
54-55	MERCURY	24.50
49-53	OLDSMOBILE	24.93
54-55	OLDSMOBILE	26.95
1953	PONTIAC V8	24.50
1953	PONTIAC V8	24.95
51-53	STUDEBAKER V8	24.95
53-54	STUDEBAKER V8	27.95

Be sure to give make, year, model, body style of car & state if you have Power Brakes, Power Steering, Standard or Automatic Transmission.

DEEP TONE
Fiber Glass
Packed
MUFFLERS
Increases horsepower, increases gas mileage, straight-through construction, no back pressure, no high pitch irritating noises, deep powerful non-offensive tones. Specify make and model.
Stock No. 37—POSTPAID **\$4.95**



New Modern "Caddy" Style Headlight Rims
• TRIPLE CHROME PLATED
• VERY EASY TO INSTALL
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Gives cars that "Look of Tomorrow" — for that modern appearance.
Stock No. 29—Fits 1952-53 Fords, 1954 Ford, 1953-54 Chevrolet, 1949-53 Cadillac, 1949-52 Pontiac.
For the all-time cars. POSTPAID **\$6.95**
Stock No. 95 Fits 1949-52 Buick
48-49 Cadillac
49-52 Chevrolet
49-54 Nash
49-50 Chrysler
48-50 Olds
49-54 De Soto
49-54 Plymouth
49-54 Dodge
48-53 Packard
49-51 Ford
51-53 Henry J
47-52 Kaiser-F
No. 96—For 1953 Ford.
POSTPAID **\$8.85**

AN-OOO-GAH Chromed HORN



Now it is for the sport car enthusiast. Not a vibrator or other substitute but a genuine motor driven horn.
No. 60—6 VOLTS, 12 VOLTS
State Voltage Needed. **\$12.60**

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These sets are the most efficient and finest made—so designed and constructed to—
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ALL HEADER & DUAL MUFFLER SETS HAVE
2 HOLLYWOOD Type MUFFLERS
Dual Side Tail Pipe • Pair Headers
• Clamp Set • Pair Extensions

• Easy-to-follow instructions

Stock No. 88—For the following Cars	per set
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50-51 CADILLAC	61.10
50-51 CADILLAC	64.30
53-54 DODGE, except Convert.	64.30
1955 CHEVROLET	58.40
35-53 FORD V8 & MERCURY	35.95
54-55 FORD V8 & MERCURY	38.75
49-51 LINCOLN	59.30
52-54 LINCOLN	68.00
49-55 OLDSMOBILE	53.40
1953 PLYMOUTH	64.30
51-52 STUDEBAKER	59.90
53-54 STUDEBAKER COUPES	61.00

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UNIVERSAL—Fits All Cars
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Specify Voltage when ordering.

Convert Black Tires to White Side Walls—with Genuine 100% White Latex Rubber

WHITE SIDE-WALL DISCS
NOT A PAINT!
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Fits all 15" and 16" Tires



For a few dollars, tires can now be glamorized with White Wall discs. Every black tire can become a luxury accessory with very little effort. Kit comes complete with cement, roller and all other necessary accessories for Simple and Easy Installation. Once on the tire it will not peel off. No. 106—Postpaid **\$9.95** Per Kit

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For Customizing the Ford 47-55, Chev. 47-55 Mercury 49-51 and Plym. 47-55.
CHROME PLATED



Replaces factory hood ornament. Blends perfectly into moulding.
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Intake Manifold Whistle! Gives the Wolf Call, Imitates a Barking Dog and Other Effects. Precision built—a reliable signal and is adaptable and ideal for Autos, Trucks, Motorcycles, Motorboats and Outboard Motors. Simple to install—works off the intake manifold.
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Custom Grilles for 49-51 Ford



Will replace the original grille on all Fords 49-51. Made of heavy gauge steel.
Precision engineered for perfect fit and easy installation. Chrome finish and massive appearance.
No. 79—Postpaid-Each **\$19.60**

New "Jet-Flo" BUMPER GUARDS EXHAUST AND BUMPER GUARDS COMBINED



Gives the Appearance of Dual on Single Exhaust Systems.
Complete bumper guards with adapter pipes included. EASILY INSTALLED, just remove old bumper guards and replace with JET-FLO'S. For Ford 49 thru 54. For Chev. 49 thru 53.
Stock No. 33—Postpaid **\$14.95** Set

Theft Proof HOOD LOCK KIT



Operates from the dash. Protects all Underhood Parts from Theft.
Fits Ford, Chevrolet, Plymouth and All Cars With Outside Hood Latch.
• Complete Do-It-Yourself Unit.
• Easy Step by Step Installation Instructions
• Does Not Interfere with Original Hood Safety Catch when Properly Installed
• Prevents Hood from Being Opened When Car is Locked
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CHROME PLATED
Die Cast... Triple Chrome Plated! No Holes to Drill... Just remove backing and apply on: Auto Hoods, Fenders, Trunks, Doors, etc. 4" Wide, 1 3/4" High Black and Chrome.
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For All Cars & Trucks
Don't let heavy loads
break the springs on your
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 - 1500 Lb. Extra Capacity.
- Once on they can be installed or removed in a jiffy. For a quick change over from normal springs to heavy duty. Use quick change Helper Springs. Will fit all 1/2 ton and 3/4 ton Pick-Up or Truck. Has Bronze Base—comes complete with all "U" bolts and special brackets. 100% Universal. Complete with instructions.

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		Will's 40-55

Specify Year, Make and Model when ordering.
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Special Curved Convex Glass Curb to Curb Vision—Eliminates Blind Spots—Wider Range of Vision thru the Larger Windows of New Cars. CURVED MIRROR—2 1/2" x 10" in Metal Case Painted a Neutral Grey Hammered Finish with a Plastic Rim to Match. **POSTPAID.**
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All metal. Prime finish with rubber beading. For these model cars—
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Give exact year, make & model

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For use in Custom Re-Designed Autos, Trailers, Cycles and other Mobile Equipment. Sturdy—Light—Durable. Made of 20 gauge steel. Contoured to fit all automobile tires. Universal mounting brackets adapt to standard brake back-plates. Prime finished—ready to paint.
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This Electric Trunk Release Kit enables the Custom Car Owner to open his trunk from inside the car by the touch of a button. Easily installed. Kits come complete with illustrations. Instructions.
For 36-53 Ford & Mercury. All G.M.C. 49-52 except 490 Oldsmobile 98.
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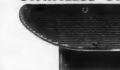
DYNA Highly Polished Aluminum CARBURETOR SUPERCHARGER



Easily installed. Complete with gasket, cap, screws & instructions. A highly efficient mixing chamber that actually mixes gas and air with volcanic force. Lowers the fuel-air temperature 50 to 60 degrees, allowing the mixture to enter carburetor before condensation takes place.
• INCREASES MILEAGE
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Give Exact Year, Model and Make as Car. Many owners report complete absence of "Ping" due to uniform fuel dispersion, even with low test fuel. For All Cars.
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- Fits any standard make of automobile.
- Scuff-proof—stainless steel.
- Easily cleaned.
- Rugged stainless steel will outlast car.
- Easily and quickly installed without special tools.

No. 69—Postpaid, per pair **\$4.99**

PLASTIC "SEAT-SAVERS"

One size fits all makes of cars



- Made of finest heavy gauge plastic with reinforced stitching.
- Completely protects present covers—front, back and seat.
- Ideal for shop men to protect upholstery.
- Slips on and off in a jiffy—no elastic or tapes to tangle, fray or pull out.
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Has new Fibreglass material, tough plastics and resins that reinforce and become as strong as steel. It's so easy and simple to do a custom job, or repair any part of the car body. NO LEADING. NO WELDING. NO SOLDERING. No Special tools.
Stock No. 19—Kit and Materials to Cover 3 sq. ft. POSTPAID **\$3.78**

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It's the New "Rage"! Gives a most amusing and commanding two-tone bell sound. Easily installed under car floor by driver's seat. Step on plunger. 5 1/2", highly polished. Fits any car.
Stock No. 49 POSTPAID **\$3.95**

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EXTRA-THIN .020" SOLID COPPER



These copper gaskets are only .020" thick. It is the same as milling heads .040" to "hug" the motor to give amazing acceleration, power and mileage.
State exact year, make and model when ordering. (If car is V8 type two gaskets are furnished at no extra charge.)
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FUEL PRESSURE REGULATOR



Prevents Flooding and Stalling
For any make or model car. This regulator easily installed on any carburetor, prevents flooding and stalling. Greatly reduces gas waste caused by the fuel pump pulsations and surges.
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PLYMOUTH, DE SOTO, DODGE, CHRYSLER



A Double-thrust Self aligning Bearing Distributor Plate Assembly. Quicker starting. More power. Better performance. Greater coil saturation. Smoother acceleration (at all speeds). Greater gas mileage. Longer spark plug life. (Hotter spark assures complete combustion).
Specify make and model.
Stock No. 14 POSTPAID **\$4.95**
Stock No. 48—49-53 Ford V8 & Merc—33-54 Chev, Buick, Olds & Pont—37-49, each POSTPAID **\$3.95**

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"What's Your Problem?"

By Chuck Eddy

GRAHAM SPORTSMAN

Dear Chuck:

Last racing season I ran a '37 Graham supercharged coupe on a 1/4 mile banked track.

Coming out of the turns it has plenty of go with a 4.7 rear axle, but it is dead by the middle of the straightaway.

My problems are: The engine has been modified some but the cam is stock; what cam should I use? Can I improve the performance of the supercharger? Who should I have the cam ground by?

Barney G. Mattie

East Braintree 84, Mass.

We suggest you consult Harman-Collins Sales Corp., 5552 Alhambra, Los Angeles 32, Calif., about a better cam for your setup.

You can reduce the clearances between the rotor and the housing of the blower. Contour machining the housing to exact curvature of the blower blades, then making a straight face cut at the upper and lower housing parting lines to reduce internal clearances will boost the blower pressure at a given rpm. You might try larger tires as it sounds as though you must be overrevving your mill with the 4.7 rear axle ratio.

LINCOLN FREED THE SLAVES?

Dear Chuck:

I've long had the dream of a cool '52 Ford of my own. I now have it. As a power plant I was going to throw in a late Merc engine. As an afterthought how about a '42-'48 Lincoln V-12 to power my heap? It's a big job, but my worries are on the end you handle. What's a good argument for and against this maneuver?

Denny Mills

Eggertsville 21, N.Y.

Dear Denny: By all means stay away from using the heavy, outmoded V-12! As very little speed equipment is made for this engine and parts are getting more scarce, it is a poor candidate for a companion on the Primrose

Power Path, up which you are plodding! Use the latest engine you can afford and save money and trouble in the long run.

BLOWER TERMITE EXTERMINATOR

Dear Chuck:

Just read your article, "Forced Air Heat," in CCM and it was of great interest to me since I own a Judson Supercharger which is installed on my '53 Ford, with Fordomatic. It is a complete kit and is supposed to be calibrated for a '50 to '53 Ford, but does not operate satisfactorily. From your articles, I gathered you would be able to advise me on some, or all, of my difficulties.

I had the supercharger run on a chassis dyno and it runs lean at high speed. It will not accelerate from a standstill; when you open the throttle fast the engine will die, even though the accelerator pump is putting out a good stream and is on the longest stroke. What could be wrong and how do I correct it? On the Dyno, at wide open throttle, I still have about 2 inches of vacuum.

Could you tell me the best carburetor to use with my installation? The flange on my blower is only made for one Ford carb. Also, how to hook up the linkage for a Fordomatic transmission so it will operate correctly with this installation.

T/Sgt. Thomas R. Tybie

Bolling AFB, Washington, D.C.

Several things might be tried to eliminate your difficulties. Before you change carburetors try drilling out two drill sizes larger the passage restrictions under the "economizer" valve. Try less stroke on your accelerator pump. Try more initial advance on the distributor setting with tighter spring settings to prevent detonation in the middle and upper advance ranges. Check mixtures after every change and remember that detonation can be propagated by lean mixtures, too great advance, and chamber roughness or leaking head gaskets.

After some more experience with the two throat to give you tuning background, you may be interested in installing the B5A 9510-N 4 throat Holley carb. This would require the machining of an adapter plate and the installation of the large distributor advance diaphragm on your distributor.

Linkage problems were covered in the April '54 issue of CCM, which is available at 5959 Hollywood Blvd., Los Angeles 28, Calif.

BENCH RACIN'

(Continued from page 4)

manifold clearance or oil pan clearance or both. Methods of performing surgery on pans or steering must be devised.

The throttle and clutch linkages, fuel and electrical connections are other items that must be "customized" according to the installation and the ingenuity of the builder.

Now we get to transmission adaptors. For the most popular overhead valve V8's, including Buick, Cad, Chrysler, DeSoto, Dodge, Lincoln, Olds and Studebaker, there are adaptors that will couple the engine to any post-1932 Ford or Mercury synchromesh transmission. Additionally, there are adaptors for coupling Cad and Olds engines to 1950 and later Stude synchromesh and automatic transmissions and to Chevy six synchromesh transmissions from 1940 through '54. For special installations, where the necessary chassis changes have been made, 1932 through '48 Ford transmissions may be used in a Chevy chassis for either a Chevy six or GMC engine. The major outlets for adaptors are McBar Machine Shop Inc., of Peru, Indiana; Bell Auto Parts of Bell, Calif.; Wilcap Company of Los Angeles, Calif.; Cook's Machine Shop, Los Angeles, Calif.; Harman-Collins Inc., Alhambra, Calif.; Moon Automotive Equipment, Norwalk, Calif.; and Weber Tool Co., Los Angeles, Calif.

The available adaptors, of course, do not account for all types of installations; there is always the problem of an engine-transmission combination for which no adaptor is made. In this case, the adaptor must be fabricated and this should be done by a competent machinist so that the hole locations and the depth will be as accurate as possible.

In nearly all installations of this type, the front springs will require some degree of stiffening to compensate for the added engine weight and to put the front end back up where it should be.

A final word of warning: When a big engine is installed in a lightweight chassis, don't expect the small transmission to last forever—it won't because of the additional torque being forced through it. Perhaps one of the automatic transmissions would work better than the traditional Ford or Chevy gearbox; and don't sell the automatics short, they really work with a big engine in a light chassis.

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OHV ENGINE ADAPTERS

BELL is the place to buy the adapter you need to put that big OHV engine in your Ford or Mercury. Listed below are but a few of the many adapters available at BELL.

The adapters listed below fit 32-48 Ford and 39-50 Mercury transmissions.

CADILLAC	55	OHV	\$64.50
CADILLAC	49-54	OHV	31.50
OLDSMOBILE	49-55	OHV	
DODGE	53-54	OHV	
DE SOTO	52-54	OHV	67.50
CHRYSLER	54	OHV	
FORD	54-55	OHV	59.50
MERCURY	54-55	OHV	

The adapters listed below fit 49-55 Ford and 51-55 Mercury transmissions.

CADILLAC	55	OHV	\$77.75
CADILLAC	49-54	OHV	53.50
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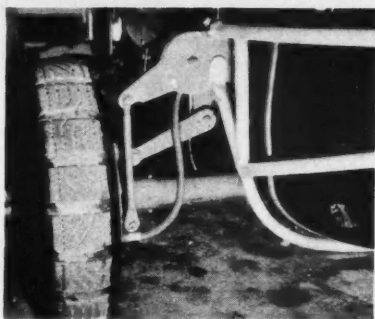
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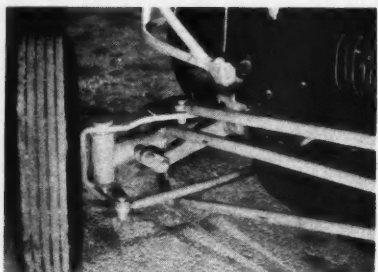
continued from page 23



In and out box used in car number 102 is made by supplier of 3/4 midget parts. Ford U-joint was spliced to Austin torque tube.



Rear shocks and torsion arms on car 7 show in this view. 5.00 x 8 tires are grooved.



Front wheel and steering set up on car number 7. All parts used in steering, axle, torsion suspension and spindles are special.

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OFF and ON CUSTOM

(Continued from page 47)

The actual chopping consisted of removing four inches from the lower section of the windshield post and three inches from the top's side panels, just to the rear of the quarter windows. Two restyling changes were accomplished by utilizing this method.

The top sat more level and was now positioned at the rear, about three inches forward from that of its stock mooring. This left a gap of approximately three inches on the top of the rear deck that was filled with eighteen-gauge sheet metal and faired into the rear of the top. This eliminated the typical stock sway-back styling and gave the small Stude a clean break between the top and the body.

For added strength, a heavy weld bead was tacked onto the underneath edge of the top at the rear. At the front, a flat piece of heavy gauge sheet metal, conforming to the top's leading edge, was welded in place for use as a convertible's head bow. For positioning, three metal dowl pins were adapted to the head bow and one to either side of the top at the rear. The pins have corresponding slots incorporated into the top of the windshield frame and in both sides of the body. Once the top is in position it is then cinched down with stock '41 Buick convertible top clamps that have been installed on the forward bow and along both sides.

After the top was completed from a metal working standpoint, it was then handed over to the Del Mar Glass Company, with Bill Smith doing the honors of chopping and refitting the original windshield and window glass.

Before the low, sleek Stude emerged from the custom shop's portals, it went through some minor trim removal operations and a mild lowering job. If by chance you catch yourself taking a double look at a small Studebaker convertible charging down the local avenue, you may be feasting your eyes on this one of a kind!

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- 49CL50—'49-54 Cadillac to '49-51 Lincoln manual transmission
- CF-52—Cad and Olds to '52-54 Ford & Merc
- CF-50—Cad and Olds to '49-51 Ford & Merc
- CF-40—Cad and Olds to '32-48 Ford & Merc, Lincoln, Ford pick-up and 1½ ton truck
- 52-LF-52—Lincoln OHV to '52-54 Ford & Merc
- 52-LF-50—Lincoln OHV to '49-51 Ford & Merc
- 52-LF-40—Lincoln OHV to '32-48 Ford & Merc
- LF-40—'49-51 Linc, FH to '32-48 Ford-Merc-Linc, etc.
- CRF-52—'51-53 Chrysler V8 to '52-53 Ford & Merc
- CRF-50—'51-53 Chrysler V8 to '49-51 Ford & Merc
- CRF-40—'51-53 Chrysler to '32-48 Ford & Merc
- CSM—Cad & Olds to '53-54 Stude manual transmission
- CSA—Cad and Olds to Stude automatic transmission

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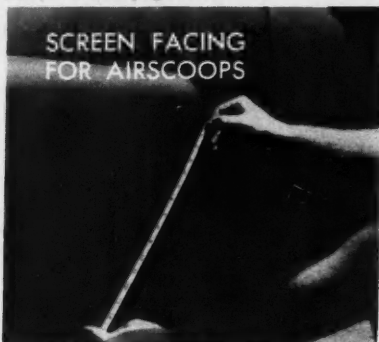
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1. With a measuring tape, measure off the length of the newly built scoop's opening.



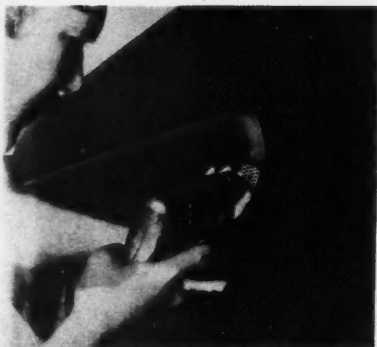
2. Next step is to cut an exact template of the airscoop's opening from cardboard.



3. The cardboard template is now placed on small mesh chrome screen and scribed off.



4. When cutting screen, place it in the opening from time to time to check the fit.



5. After screen is cut, place in the opening and drill three small attachment screw holes.



6. Screen is merely secured to the face of the opening with three small chrome screws.

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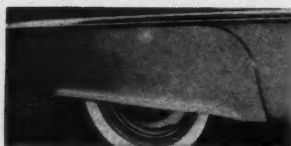
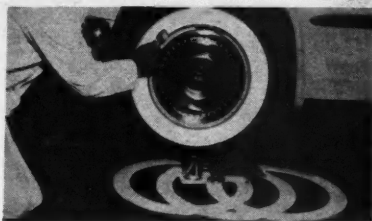
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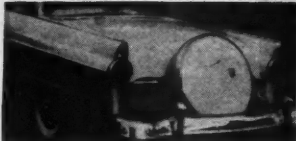
35-53 Ford	35-54 Pont	35-41 Buick
39-54 Merc	35-52 Dodge	50-53 Buick
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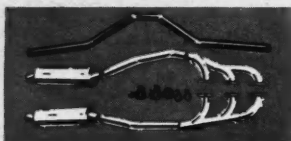
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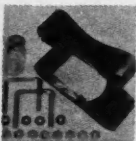
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